

MAN AND HIS CHANGING SOCIETY

The RUGG Social Science Series

VOLUME TWO

of the First Course

Nature Peoples



Nature Peoples

By

HAROLD RUGG, *Professor of Education*
Teachers College, Columbia University

and

LOUISE KRUEGER, *Director, The Walt Whitman*
School, New York City



GINN AND COMPANY

BOSTON • NEW YORK • CHICAGO

LONDON • ATLANTA • DALLAS • COLUMBUS • SAN FRANCISCO

COPYRIGHT, 1886, BY GINN AND COMPANY
COPYRIGHT, 1888, IN THE PHILIPPINE ISLANDS

ALL RIGHTS RESERVED

848.4

MAN AND HIS CHANGING SOCIETY

Classifier 77

The **HUGG** Social Science Series

VOLUMES IN THE FIRST COURSE

- I . The First Book of the Earth
- II . Nature Peoples
- III . Communities of Men
- IV . Peoples and Countries
- V . The Building of America
- VI . Man at Work: His Industries
- VII . Man at Work: His Arts and Crafts
- VIII . Mankind Throughout the Ages

WORKBOOKS AND TEACHERS' GUIDES

Each workbook accompanies each of the above volumes. Teachers' Guides are available

VOLUMES IN THE SECOND COURSE

- I . An Introduction to American Civilization—II . Changing Civilizations in the Modern World—III . A History of American Civilization—IV . A History of American Government and Culture—V . An Introduction to Problems of American Culture—VI . Changing Governments and Changing Cultures

NEW AND REVISED VOLUMES IN THE SECOND COURSE

- I . Our Country and Our People—II . Changing Countries and Changing Peoples—III . The Conquest of America—IV . America's March Toward Democracy—V . Citizenship and Civic Affairs—VI . America Rebuilds (*In preparation*) . (V and VI form the two-volume *Community and National Life*)

WORKBOOKS AND TEACHERS' GUIDES

Pupil's Workbook of Directed Study and a Teacher's Guide accompany each of the above volumes

CONTENTS

CHAPTER	PAGE
I. A Picture Story	3
II. A Desert Story	13
III. The Little Bushmen: Food-Gatherers of the Desert	31
IV. The Ona Indians: Food-Gatherers of "The Land of Fire"	51
V. To the Land of the Eskimos: More Food-Gatherers	85
VI. The Copper Eskimos: Food-Gatherers of the North	101
VII. The Fuzzy-Haired Papuans	141
VIII. Some New Questions about Climate	173
IX. The Baganda of Uganda	183
X. New Ideas about Ways of Living	218
XI. The Grass Peoples of Asia	225
XII. Tibet, the Highest Country in the World	261
XIII. The Arab Bedouins of the Sand Desert	295
XIV. What Have We Learned about Nature Peoples?	331
BOOKS YOU WOULD LIKE TO READ	339
HOW TO PRONOUNCE SOME STRANGE WORDS	341
INDEX	345

Nature Peoples

CHAPTER I

A Picture Story

THIS BOOK is really a picture story of people in many parts of the world. Strange people! Interesting people! People in many continents. People of Asia; people of Africa; people of South America; people of the large islands in the Pacific Ocean.

The world is a kind of picture. Let us look at it.

Turn through the book and take a flying trip of mind magic! We shall look into the homes of some of these people — black people, white people, brown people; tall people, tiny people. People living in stone houses, in brick houses, in straw houses, in skin houses. People without any houses. People in hot, sandy lands. People in cold, icy lands. People in mountains and forests. People in swampy jungles. How many the peoples of the earth are!

Some Peoples Are Wandering Food-Gatherers

Did you know there were such people in the world as those in the picture on page 5? They are

the Ona Indians, who live in South America. In Chapter IV we shall read about them. They have no houses, and no farms on which to raise food. They get food wherever they can find it. They hunt and fish. Because they wander about looking for food, they are called food-gatherers.

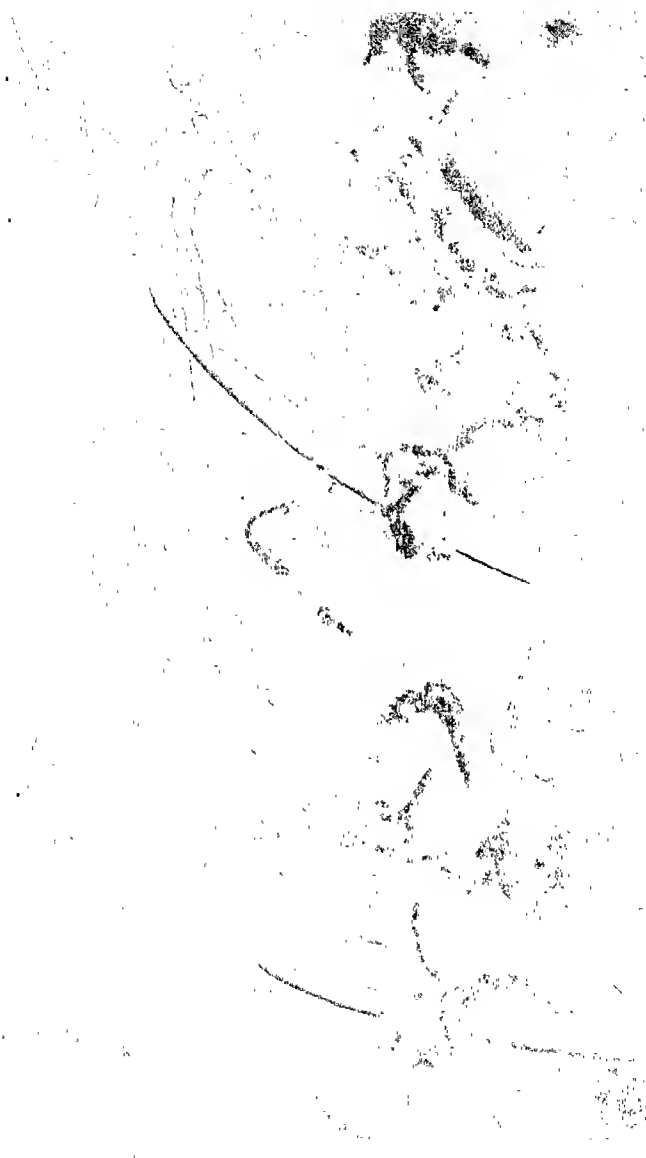
There are many other food-gatherers in the world just as interesting as the Ona. Some of them live not far away from us in North America. Some live in Asia or in the near-by islands of the Pacific Ocean. Others live in far-off Africa.

We have chosen only three of the wandering food-gatherers to study in this book. They are the Bushmen, the Ona, and the Copper Eskimos. Perhaps later you can find books in which to read about still others.

The People of Simple Homes

Among the many peoples of the world are some who do not live in quite such a simple way as do the Bushmen, the Ona, or the Eskimos. Their houses are simple but better. They live in villages and do not move from place to place hunting for food. In small gardens they grow some vegetables and grain. We think of them as the people of simple homes.

FIG. 1. An Ona family of South America in their clothes made of guanaco skins



The Papuans of New Guinea are one of these peoples. You can see an interesting Papuan village on page 7. What do you think they use to build their houses?

We shall read about the Papuans in Chapter VII. We wish we had space in this book to tell you of more peoples like them. There are many islands in the Pacific, and on them live peoples very much like the Papuans. Not very far away from New Guinea are Bali and the Fiji Islands, Tahiti and Samoa. And on these warm islands of the Pacific there are many other people.

In Chapter IX we shall read about the Baganda, who live in the African kingdom of Uganda. You can see pictures of them if you turn through the pages of that chapter. They also are people of simple homes.

Many other people like the Baganda live in Uganda, too. We really had a hard time to choose one to write about in this book. Should we take the Bahima or the Toro, the Bakonjo or the Lendu? And outside of Uganda, in Africa, are hundreds of

¹ Photograph from *Pearls and Savages*, by Captain Frank Hurley.
Published by G. P. Putnam's Sons.



FIG. 2. How the Papuans built their homes and streets in Elevala,
on the far-off island of New Guinea¹

Copyright Frank Hurley

other tribes who live in the same simple way as do the Baganda.

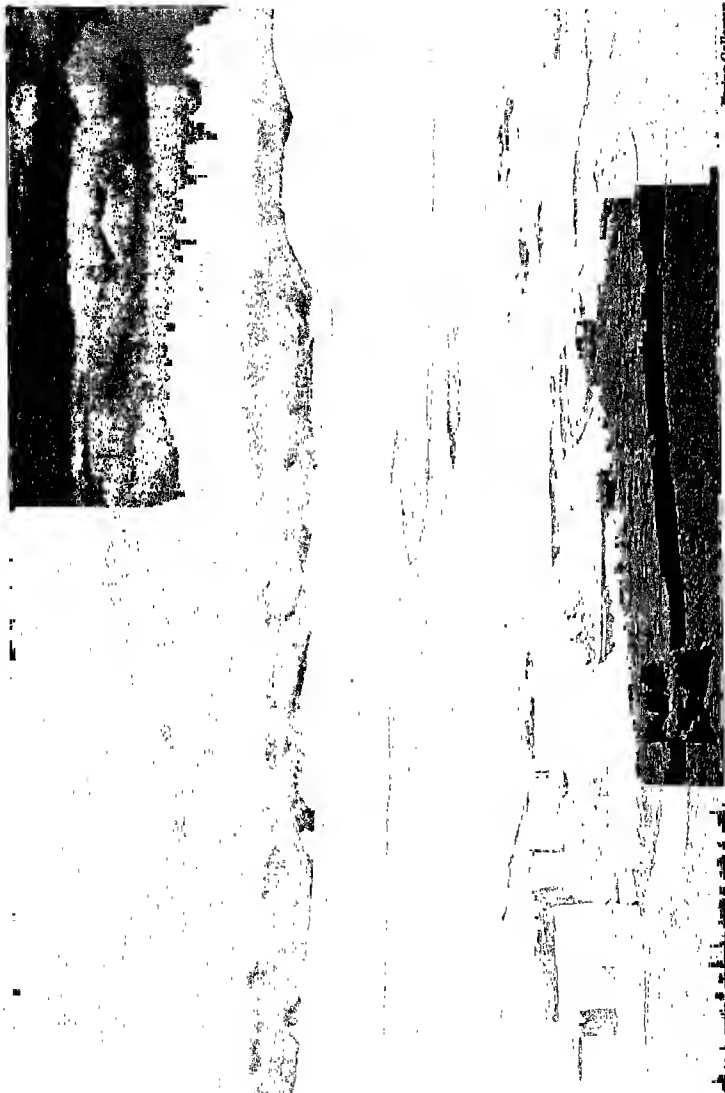
Perhaps you can get books from the library to read about some of these people. Then you can tell the other children in your class about them.

The Wandering Herdsmen

Do you want to read about the people of the Land of Grass? We shall hear an exciting tale of their life in Chapter XI. The ones we shall study live in Asia. Twice each year they go across rivers and high mountains with their flocks and herds. Their animals must have grass to eat, and the "grass peoples" must go where it grows.

There are many other "grass peoples" besides those who live in Asia. In other continents too there are wandering people who move from place to place hunting for grass for their flocks and herds. We call these men who own herds of animals herdsmen.

Some of these wandering herdsmen live in Asia, in Tibet, which is called the "Roof of the World." Do you wonder why? You will find out later, when you read Chapter XII. Figure 3 shows you a picture of this interesting country.



Living Gallery

Fig. 3. There are mountains all around Tibet, "the Roof of the World"

The wandering tribesmen of the hot, sandy deserts hunt for grass, but they hunt even more for water. In Chapter XIII we shall read about the Bedouins of the Arabian Desert. But there are other peoples who live in vast sandy deserts. There are those who live in the Sahara Desert in Africa, those who live in the Gobi of Central Asia, and many others. There are many interesting books in which you can read about them.

In This Way We Introduce Our Book of Interesting Peoples

If you have turned through the pictures of this book, you have looked in on a few people who live in different parts of the world. In some ways they are different from each other. In other ways they are alike.

But they are all people, human beings like ourselves. They live on the same earth as we do; they want some of the same things that we want. They all want food. They all want to be kept warm or cool. And they all like to be with other people.

In *The First Book of the Earth* we learned how the earth was formed and how men came to live on it a

million years ago. Since that time of long ago many different kinds of people have lived upon the earth. Today there are hundreds of different kinds.

Today our own lives are bound up very closely with the lives of others in the far-off continents. What happens to them may change our ways of living. So it is very important for each of us in America to know about the people of the earth.

In this book we shall read stories about some of the simple nature peoples. We shall study the people who wander about looking for food. We shall read about those who move with their herds. We shall see the life of the people who use simple tools and have simple houses. And in later books we shall study our own people and the many others who use machines and engines and live in cities and towns.



Ewing Galloway

FIG. 4. Is "Death Valley" a good name for this desert of sand?



© Wiles

FIG. 5. Do you think many people could live in such cold deserts of the Far North?

CHAPTER II

A Desert Story

What Is a Desert ?

"MISS BROWN, what is a desert?" asked Nancy one morning as the children came together. "Jack and I don't think the same about it. We are reading about one — the Kalahari Desert in Africa. But it doesn't seem quite like a desert to me!"

"Why not?" asked Miss Brown.

"Well, I think a desert is a hot place where there is nothing but sand. Most of the Sahara Desert is like that," said Nancy. She went to the map and pointed to a place in Africa marked "Sahara Desert."

Then Jack spoke. "But there are deserts where it is not hot and sandy. I have a book that tells of two cold deserts. One is around the north pole, and the other is around the south pole. There's nothing there but snow and ice and water. Here, look," he said, pointing to the two poles on the map.

"Yes," put in Charles, "but there are rock des-

erts too, like the one in Utah, where my uncle lives. It's rocky, and there are no grass and no trees. It is just stony ground and rocky hills. But it's a desert. See, here it is," he said, pointing on the map of the United States to the Great Salt Lake Desert in Utah.

"Yes," said Miss Brown. "There are cold places called deserts, and hot places called deserts. There are sandy places called deserts, and icy places called deserts, and rocky places called deserts. What is it, then, that makes a desert?"

"I know," spoke up Tom. "It's a place where there's no water."

"No," said Nancy, "that can't be, for the north-pole and south-pole deserts are really all water. The ice and snow are really frozen water."

"That's true," said Bobby. "It isn't only the sand or the ice or the rocks that make a desert. What is the one thing that does?"

Suddenly Mary, who had been very quiet, spoke. "I think I know. A desert is any place where things like grass and trees don't grow well. The sandy desert of Sahara is like that. The Utah desert is like that. The Kalahari is like that. The Arctic

desert is like that. Things don't grow well there. I think that's what makes a desert."

"Does everyone think that is the correct explanation?" asked Miss Brown.

Some were not sure, so Miss Brown said, "Let us look in the dictionary."

Jack went to the shelf of books and looked in the dictionary. This is what he read: "'A desert is a place where there is little vegetation.'"

"What is vegetation?" asked someone.

"Vegetation means the plants that grow on the earth. It means grass or any plants that animals eat. It means potatoes or corn or wheat or fruit or other plants that people eat. So Mary is quite correct. A desert is any place where plants do not grow well. But a desert is also a place where there are few animals and few people, because without plants to eat, animals cannot live. Without plants or animals to eat, people cannot live. So, in a desert, people have a hard time to live."

To give you a picture of one desert on the earth we are going to tell you a story. See if you think the children were right in what they said about the desert.

Crossing the Kalahari Desert

Years and years ago some Dutch people left their homes in Holland to make new homes in the south of Africa. Many of their friends had gone there before them, and they had heard that there was good land for farms.

When they came to South Africa these Dutch people found that other people had come before them. Some of these people were English, and they owned most of the land and made all the laws.

So these Dutch decided that they would leave and find a place where they could have big farms of their own and be their own masters. They had heard that there were great open plains of good land far to the north. But, to go there, one had to cross a great desert. That was the Kalahari. It was an unknown land of sandy plain hundreds of miles across. There would be almost no water to drink at that time of the year. There would be almost no grass for the oxen to eat. It would be a dangerous place to cross.

But, they were told, there were many kinds of animals which they could shoot and eat. There were zebras and antelopes, as well as ostriches and other

birds. If only they could find water, then they could get across safely.

They thought and thought. The dangers were great. They would suffer much. But there was that fine land on the other side. It was worth trying.

So the Dutchmen put their wives and children and all their furniture into oxcarts and started on the long ride.

For a few days all went well. But it was hot; oh, so hot! The sun shone all the time. Not a single cloud could be seen. Not a drop of rain fell. There was grass for their oxen, however, and each day they found little streams or pools of water where their animals could drink and where their jugs could be filled for the next day.

Trouble Begins

Then trouble began. The carts broke down, and the tired people had to mend them. The grass became thinner and thinner, and the oxen hungrier and hungrier. Whole days passed without their finding a water hole or a stream. Still the sun shone steadily down, and beasts and people became thirstier and thirstier.

All day long the eyes of the travelers watched the sky for rain clouds. But nothing but clear blue did they see. It was only April, and it would not rain until October. Unless they found water soon they would die. One day one of their animals did die, and the cart and everything in it had to be left behind.

So several more days passed, with the water holes farther and farther apart and the trees and bushes to camp under harder and harder to find.

Deeper and deeper into the desert they went. Some days their cartwheels would slide easily along the smooth, hard ground. Then they would pass into great white sandy spaces. Here the shining of the sun on the miles and miles of white sand made their eyes ache. On other days they would plow through deep red sand and pass large red rocks. From time to time their carts rolled down steep banks into deep hollows. These had been made by dried-up rivers that had flowed along there thousands of years ago.

For a while the travelers had enough food. Almost every day they saw herds of animals close by. There were zebras and antelopes and many other animals they had never seen before. Here are the



Kudu



Waterbuck



Zebra

© A. M. N. H.



Wart-hog



Blue wildebeest

L. B. A.

FIG. 6. The Dutch people saw animals like these as they traveled

names which later were given to just a few: hartebeest, wildebeest, waterbok, eland, wart-hog, kudu, bush pig. Many of these animals the Dutchmen killed as they traveled along. In some places they caught smaller animals, such as rabbits, porcupines, rats, and even mice and bats. Along the banks of a few streams they shot ducks and geese. What feasts they had when the hunting was good! At night, however, they woke up in fright at the roar of a lion or the howl of a hyena.

The Travelers Think They See Water

But it was water that the people cried out for. With dried and cracked lips they watched for a water hole.

Suddenly one morning one of the children in the first cart shouted, "Look! Water! A lake of water!"

All the people stared with aching eyes. Sure enough! There it was, a great lake shining in the sunlight.

The oxen saw it too — the water they wanted so much. Pulling at the carts, they tried to hurry on toward it. The whips of the drivers cracked over their backs.



FIG. 7. The travelers think they see water. It is only a mirage!

Harold Nisbet

Suddenly the lake seemed to disappear. Where the water had shone in the sun, there was only white sand and rough bushes.

"It's not a lake," said one of the men. "It's a mirage! It's only something you imagined you saw. The heat of the sun on the sandy plain made it look like water. See! there it is again."

How disappointed they all were! The travelers stopped to rest and to plan what to do. Then one man rode ahead on horseback to see if he could find water. For half a day he was gone. While he was away two more oxen died. The people became weaker and weaker. The children cried for water. Before night two people had died and were buried there. Then the great black vultures, those birds which eat the bodies of dead animals and people, flew about in the sky.

A Water Hole at Last!

At last the man came back with glad news. There was a water hole about fifteen miles ahead. Slowly the travelers started on their way, hope once more in their hearts.

When they were about five miles from the water

hole, the oxen smelled the water and started on a mad rush for it. Mad with thirst they hurried over the sandy desert, pulling the creaking carts after them.

At last they came to the water hole. There was just a little clear water on top of a bed of mud. Before the drivers could stop them the oxen had pushed their way down into the hole, fighting with one another for the first drink. Around and around they stamped. Their hoofs dug up the bottom of the hole and made a thick mud out of the beautiful clear water!

Nobody could drink it,—neither animals nor people. Madly several of the oxen tipped over the carts, broke away from their harnesses, and ran off into the desert, searching for water. There, one by one, they must have died of hunger and thirst. That night the Dutch people, with all hope gone, heard the lions roaring far away and knew that their oxen had gone forever.

More Trouble

The next morning they drank the little water that had gathered on the mud in the night. Then they

harnessed the three oxen that were left and started on again under the broiling sun.

The leader rode ahead on his horse, looking for water and for wild animals for food. Suddenly his wife and the others saw him fall from his horse. Quickly they came up and found him trying to pull an arrow out of his side.

"The Bushmen!" cried one of the men. "The wild Bushmen! Look out! Get inside the carts." Lifting the wounded man in his arms, he hurried with the others to the carts. It was none too soon, for several more arrows flew past them.

"But where are they?" called out one of the older boys, looking out of the wagon and holding his gun ready to shoot. Not far away he saw a band of the Bushmen of the desert. They had held grass and bushes before them and had crept up close to the wagons without being seen by the Dutch people. Now the travelers could tell how they looked. They were little brown-skinned men, less than five feet tall, holding bows and arrows ready to shoot.

While the women and children hid in the bottoms of the wagons, the men drove the tired oxen on, trying to escape. Another ox died from the poisoned

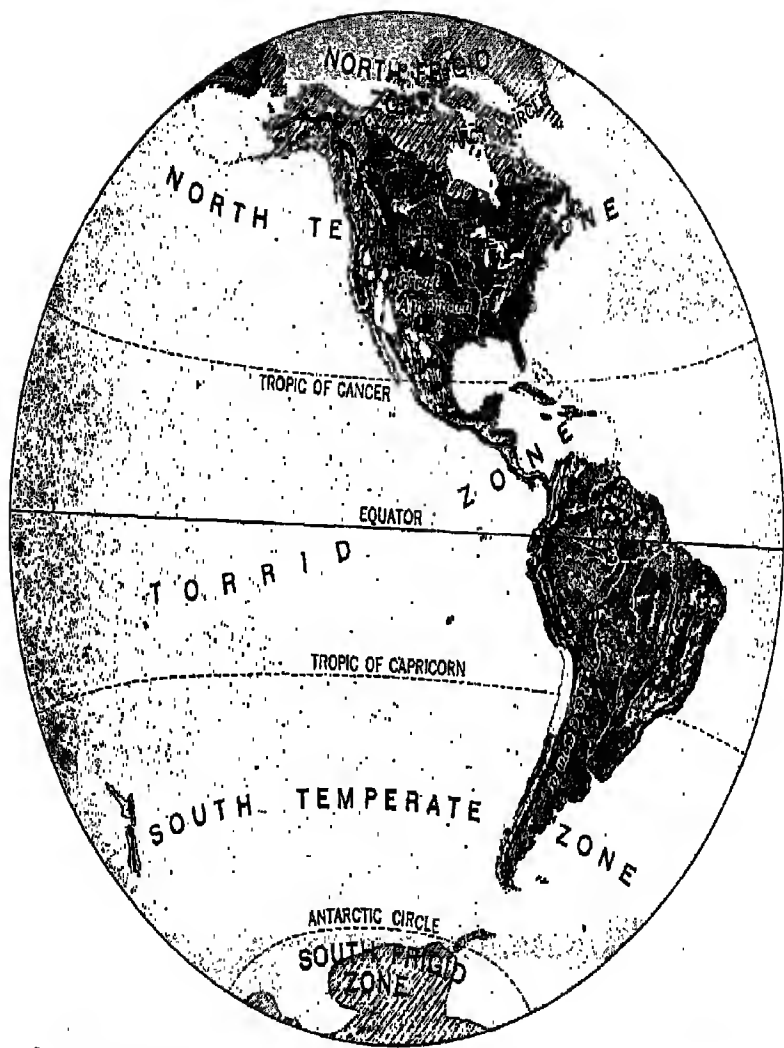
arrows of the Bushmen. But the others, people and animals, got away.

Two days later the Dutchmen managed to reach a village of friendly black people. These people gave them water and food and a place to sleep. Slowly they came back to health again.

For years and years these white people stayed with the black people and worked for them. The children grew to be old people. They married among themselves and had children of their own. But never again would they dare to go into that frightening desert.

The Great Deserts of the Earth

Do you know now what a desert is? It is a part of the world where there is little vegetation — where things do not grow well. The Kalahari is such a desert. Find it in South Africa on the map, page 27. This map and the one on page 26 also give the other largest deserts of the earth. Of course there are many, many small places on the earth where almost nothing grows. Perhaps you know of such small places near your own home. But because they are small we do not call them deserts. They are just bare places where things do not grow well.



The lands marked with straight lines across them are the great ice deserts



The white lands with dots on them are the great sand deserts



FIG. 8. An oasis in the Sahara Desert

Erving Galloway

As the children said, there are many kinds of deserts. Some, like the Kalahari in Africa, are partly of sand, partly of rock, and partly of hard gravel. Such deserts have *some* vegetation in some parts; but there is not much, and few people live there.

There are other deserts, like the Gobi of Asia, or the Sahara of northern Africa, or the Arabian, which are just hundreds and hundreds of miles of sand.

Figure 4 shows what such deserts are like. Yet even these great sandy deserts may have, here and there, small places where trees and other forms of vegetation grow green and tall. This is because water is found there. Such a green and well-watered place is called an oasis. Figure 8 shows how lovely such a spot may be, even in a desert.

There are also ice deserts, like the Arctic region, near the north pole, or the Antarctic region, near the south pole. Figure 5 shows an ice desert. In Chapter VI we shall read how a few people, the Eskimos, live in the Arctic region.

And there are still other places where there is nothing but rock and gravel, and things cannot grow well. Parts of Tibet are like that, and in Chapter XII we shall read how the Tibetans manage to live there.



FIG. 9. A Bushman is filling the shells of ostrich eggs with water.
He will bury them in the sand and use the water later

W. J. Makin

CHAPTER III

The Little Bushmen : Food-Gatherers of the Desert

THE WHITE MEN from Holland could not live in the Kalahari Desert. They did not know how to find water holes. They did not know how to save water to use when the holes were dry. They could not live long on the animal food of the desert. Nor did they know how to guard themselves against the enemies who would harm them. So the desert was not the place for them to live.

But there are people who spend all their lives in the Kalahari Desert. These are the Bushmen. Sometimes they are given other names, but that is what we shall call them.

Who are these people who live in "the bush," the wild lands, in the African desert?

They Are Little People

Look at the picture of figure 10. See how short the Bushmen are! They are standing under the

arms of the white man. Perhaps they are no taller than you.

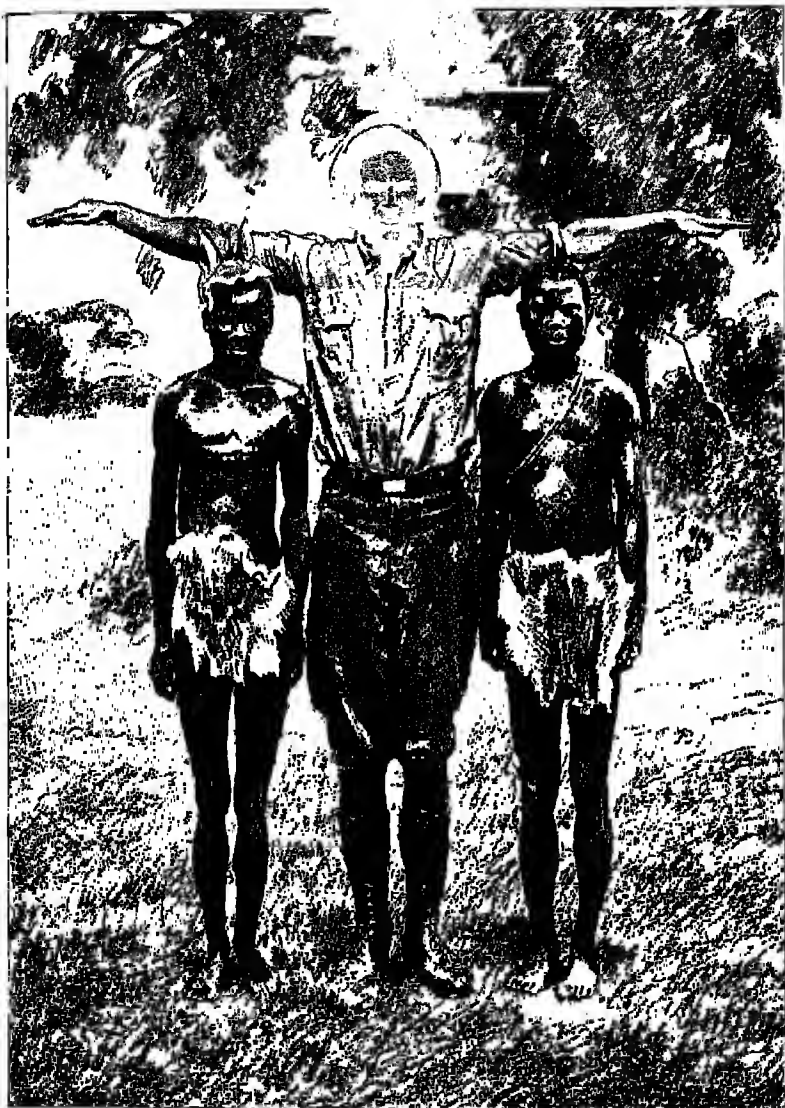
How tall are you? Are you four feet nine inches tall? Then you are just about the height of these little men of the Kalahari Desert. Some of the men are a few inches taller. Most of the women are shorter. The children are very tiny.

The very tiniest Bushmen are called pygmies. There are pygmies in other parts of the world too. We shall learn about some of them later

The Bushmen Are a Dark-Skinned People

These little people are different from the white people in color too. They are all dark-skinned. Some, who live in the open desert under the boiling sun, are quite dark. Others, such as the pygmies who live in the forests farther north, are yellowish-brown. But all are dark.

It is very hard to tell what color they really are, for their bodies are black with dirt. They wear almost no clothes, and to protect themselves from the sun and from bugs or insects they rub grease all over their bodies. From the time they are born they are never washed. Only when it rains does a Bushman



After a photograph by C. Ernest Odell

FIG. 10. How the Bushmen compare with the white man in size

get a bath, and then it is not a very good one. How different they are from those Americans who have bathrooms and take a bath every day!

And you can well imagine that they do not smell very clean! The bodies of the Bushmen give out such an odor that white men never make camp near their bush huts. The white people in South Africa like to say, "You can smell a Bushman before you can see him or hear him!"

Their hair is usually dark brown. It does not always grow all over their heads, but only here and there in spots. There is not much hair on their bodies.

They Are Wandering Food-Gatherers

The picture in figure 11 shows us what kind of houses some of the Bushmen live in. Others who are near rocky places live in caves. Sometimes all they do is build up a low wall with large stones, and camp behind it. At other times they crawl into deep holes in the ground. Or they may simply stick branches of a tree in the ground, throw animal skins over them, and crawl behind them to eat or sleep. How would you like to have a house like the ones in figure 11 for a home?

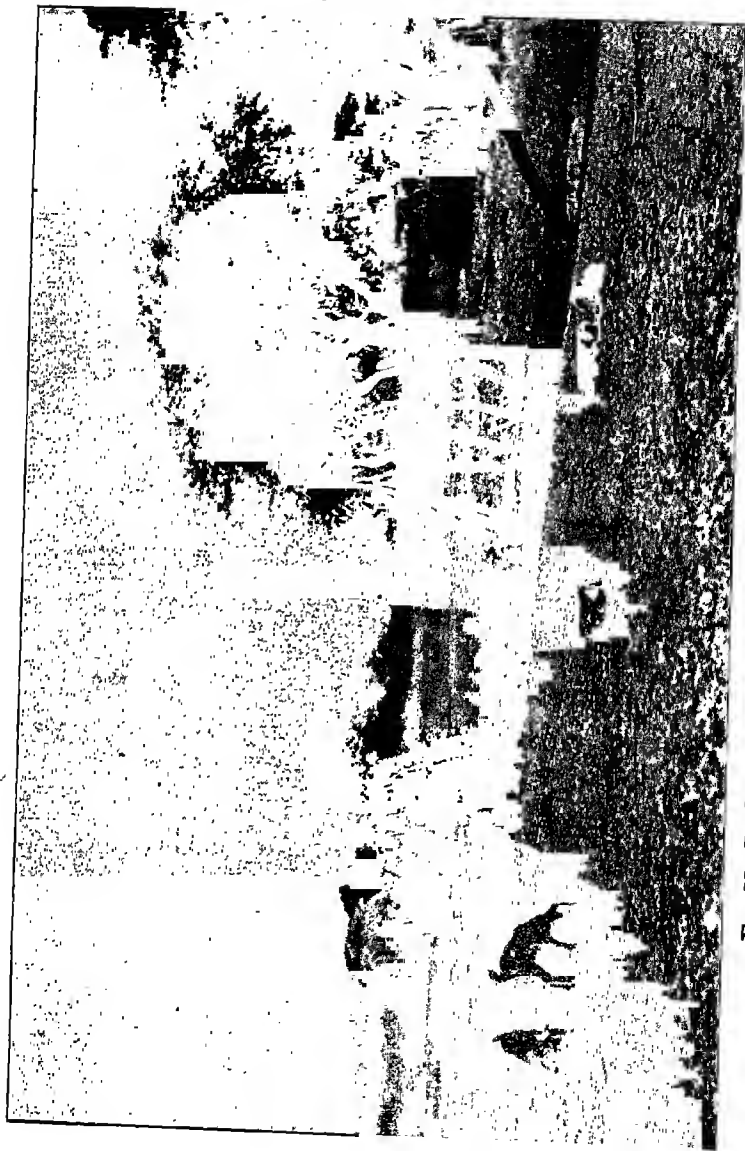


FIG. 11. Bushmen huts, with the Bushmen's animals wandering about

W. J. Math

Most of the Bushmen do not stay in one place for a very long time. They travel about far and wide. This is perhaps the most important thing to remember about them. They have no houses to which they go all the time. They do not have farms nor do they grow crops in the ground.

Perhaps you are thinking: then how do they get their food? They get it wherever they can find something to eat. They hunt their food; they do not grow it. So we call them *food-gatherers*.

The Bushmen will eat almost any living thing. And such appetites as they have! They think the long lizard is simply delicious. They catch and eat snakes, either the poisonous kind or the kinds that are not. They cut off the heads of the poisonous ones and save the poison to put on their arrow tips. It is the poison on the arrow tips that kills the animals which they shoot.

They enjoy eating birds; but, most of all, they like birds' eggs, which they hunt wherever they go. Those who are near streams catch fish. With their poisoned arrows or by making deep holes in the ground, in which they lay traps, they kill big animals, such as zebras, lions, hyenas, and leopards.



FIG. 12. This Bushman is making a trap to catch desert animals¹

Little animals, like rabbits and frogs and rats and mice, are also caught and eaten, as well as flying ants and grasshoppers.

You never saw such eaters! People who have been in the Kalahari tell strange stories of the Bushmen's appetites. One tells us that he has seen a single Bushman eat half a big fat sheep in one night. He tore the animal to pieces, threw the pieces on his fire, and gobbled them down when they were only half-cooked. Some parts he ate without cooking them at all.

¹From *Eingeborenen-Kulturen von Südwest- und Süd-Afrika*, by Viktor Lebzelter. Reproduced by permission of Karl W. Hiersemann.

Another white traveler tells of two Bushmen who killed a deer at sunset one day. All night long and all the next morning they ate. By noon nothing was left. The bones had been licked as clean as a dog could lick them. They were even cracked open, and the marrow, or soft part, inside had been taken out and eaten.

The tiny pygmies of the forest are just as great eaters as the other Bushmen. One traveler saw a pygmy take a bunch of sixty bananas off a tree and eat every one. Then he lay down on the ground and groaned and slept, and groaned and slept all night. In the morning he ate another whole bunch of bananas.

The Bushmen eat and sleep like that too. They eat until their stomachs are full, and then they lie down and sleep for a long, long time. Not until they are hungry will they get up to do anything. They never clean their huts. They make almost no clothing; they do not have farms. They have no animals to take care of — no cows or horses. Sometimes they have a dog, but he looks out for himself.

How the Bushman Hunts

But when the Bushmen are hungry, how they will work! Work means hunting for food, for that is about all the work they do. The women dig in the ground for roots which can be eaten. During the few weeks that it rains, the short rainy season, they gather berries from the bushes. Sometimes they find wild plums or even wild figs, and over these they smack their lips with pleasure. In some parts of the desert melons grow wild. These are precious to the desert people. They are not only a food, but they hold much water.

It is the man of the family, however, who has the real fun. He hunts wild animals. This is exciting and dangerous work. Let us go with one of these Bushmen on a hunt.

Getting Ready for the Hunt

The Bushmen get ready for the hunt by putting poison on their arrows. Several families of Bushmen whose huts are near come together. Around the fire sit the men, women, and children. A headman, or chief, stirs the poison in the pot over the fire. One

part of it has come from black hairy caterpillars that the mother and the children have caught. Another part was taken from the "poison bags" of snakes and from the juices of a bush that grows in the desert.

The poison boils and boils. The man stirs and stirs. And while he stirs and the poison boils, the people sing. They think that the songs will make the poison stronger and will kill the animals more surely.

At last the poison has become a paste thick enough to use, and the headman pours it off into a hollow between some stones. Then the men roll the arrowheads in it until they are evenly covered. Next the arrowheads are tied onto the long thin reeds used for arrows, and the men are ready for the hunt.

The Hunt Begins

Early in the morning the family awakes.

"Ah! there is the trail of an antelope." How do they know it is an antelope? Perhaps a twig on a bush near by has been broken. Or maybe small stones have been knocked about in certain ways, or the animal has left a track. The Bushmen have many ways of telling what animal has been there. Their eyes are very sharp.

Taking their bows and a quiver, or bag, full of arrows, the men trot off, watching the ground. Hour after hour they follow the trail of the antelope. Suddenly one of the men sees him far away. What a beautiful animal he is! What a fine meal he will make!

The men move quietly along the ground. Not a sound comes from them. Gathering bushes and grass as they go, they put them skillfully around them (see figure 13). Closer and closer come the men, without letting the antelope know that they are near. For a moment he looks up. Only a bush or two and some tall grasses move in the breeze. He doesn't see the brown-skinned little men behind them fitting their arrows to their bows.

Now the men are only 100 feet away. They decide that that is near enough. Out fly the arrows from the bows. Two of them fly toward the antelope. They hit! The Bushmen are almost sure shots. They must be sure or their lives would often be in danger.

The antelope jumps and then starts to fall! Now he stands up again and gallops away as fast as he can! The Bushmen trot along after him. They are



After a photograph by G. Ernest Cadle

FIG. 13. Do you understand how an animal might fail to see the Bushman?

not worried. They know that in a few hours the poison will work. The poison is so strong that a tiny bottle full could kill hundreds of animals.

Now the antelope stops in the shade of a tree. Soon the Bushmen show themselves. Then for a short while he goes on in the hot sun. At last he drops to the ground, and soon he dies.

Twenty miles they have run with him, and now what a feast they will have! One of the men starts back for their families. Twenty miles more of trotting in the hot sun and another twenty miles back with the women and children! That does not seem hard to them. The Bushmen are used to it, and they are helped on by the thought of the feast they will have when they get back.

The feast goes on until everything is eaten. Then begins the dance. The fires are kept burning. Sometimes the leaders begin to sing, and later all the people join in the singing. They dance about the fires late into the night, until they are very tired. At last they lie down for a long sleep.

This is one way in which the Bushman hunts his animal food. There are other ways, of course. When he is hunting birds, he uses a stick which is heavy at



This figure and the picture on the cover are drawn from photographs by G. Ernest Cadie

FIG. 14. "The Bushmen have many ways of telling what animal has been there"

one end. The Bushmen can throw this stick and hit the birds either when they are standing still or flying in the air.

Sometimes the men dig a deep pit in the ground near a water hole, where they know the animals will come to drink. The deep hole is then covered with sticks and grass.

Soon an animal comes along and walks over it without knowing that it is a trap. He falls down into the hole, and the Bushmen kill him with their poisoned arrows, or sometimes with guns which they have got from white men. /

Lions!

What about the lions and leopards and other dangerous animals? Do the Bushmen shoot them? Yes, when they have to protect themselves. But they leave the lions alone as much as they can. When a lion has eaten he will not harm people if they do not go near him. But when he is hungry, then let a man beware!

One day, just after the rainy season, two Bushmen were out on the desert. They were sitting on the edge of a water hole when suddenly they looked

up and saw a lion. He was standing not far away, quietly watching them.

The two men were frightened out of their wits. One of them ran into the bush as fast as he could go, screaming at the top of his voice. The other, seeing that the lion was about to leap, waded into the water. At this move the lion stood still, and then lay down on the edge of the water hole and waited.

All day long the lion looked at the man, and the man looked at the lion. It was very hot, and, as often as he could, the man dipped his head under the water to cool himself. Sometimes he called loudly for help, but there was no answer. The other man was still running away as fast as he could go.

The lion waited lazily on the sandy edge of the water hole. Then came the night, and it began to get cold. The Bushman standing in the water began to shiver. He cried and shouted, but no one came, and in the darkness he could see those eyes shining and waiting for him.

Suddenly, in the distance, he saw a flame. Soon there was a big fire, and the man heard voices shouting and calling. Then everything was lighted by the flames of the fire. The man looked around. As he



Harold Shabel

FIG. 15. The lion and the man watched each other all day long

did so the lion jumped up and ran away. The man saw him disappear into the darkness. He was saved!¹

What Did These Stories Tell Us?

1. *What Kind of Desert the Kalahari Is*

The Kalahari is really several kinds of desert all in one. It is a white-sand desert. It is a red-sand desert. It is a bush desert. It is a rocky, hilly desert.

Most of the year it is a dry desert. There is no rain. Then in November, December, and January great thunderstorms come. The rain pours down! The swamps rise, and grass and bushes and trees grow very swiftly. Animals grow fast then too, and the Bushman has enough food.

During this time he stores up water. He fills the shells of ostrich eggs with water and buries them deep down in the ground. Later, in the long dry summer, he goes and digs them up and drinks the water. He has learned how to live in the desert.

2. *How the Bushmen Live*

The stories told us how the Bushmen live. They hunt, and they eat and drink until they are ready to

¹ Suggested by a somewhat similar episode in W. J. Makin's *Across the Kalahari Desert*, pp. 145-146. J. W. Arrowsmith, Ltd., London, 1929.

burst. Then they sleep and sleep and sleep. They have dances, and make ready their poisoned arrows and knives of stone or bone. Then they hunt again.

3. *The Bushmen Are Simple People*

We call the Bushmen "simple." Do you know why we call them that?

They do not make homes in which they live all the time.

They do not grow food in the ground.

They do not get milk from cows.

They do not raise cattle and sheep and pigs for meat.

They do not ride horses or oxen or other animals.

They do not make much clothing.

They do not live in villages or in towns as the people of many other countries do.

Are they much like our own people?

Do you see now why we called the Bushmen simple?

4. *The Bushmen Are "Slaves of Nature"*

We can also call the Bushmen "slaves of nature." Do you see why? Do they not get their entire living from nature? They made their houses of

sticks and animal skins. These are gifts of nature. They ate such food as they could gather from nature — the meat of the antelope, the zebra, and other large animals, of small animals and birds; berries and other plants. These too are gifts of nature.

If nature sent them many animals and good weather, they lived well. If nature treated them badly, with either too little rain or too much rain, too hot a season or too cold a season, then life was hard. So we can call the Bushmen slaves of nature. We shall read about many other peoples who are simple and who are slaves of nature. /

CHAPTER IV

The Ona Indians: Food-Gatherers of "The Land of Fire"

The Land of Fire

ABOUT FOUR HUNDRED years ago Ferdinand Magellan started to sail round the world. He left Spain and sailed and sailed across the Atlantic Ocean. After several months he came to the coast of South America. Then he sailed his ship along the coast. Week after week he went, always to the south, trying to find the end of the great continent. Many times he turned his ship into the bays, hoping to find a way through to the Pacific Ocean. Each time he was disappointed.

Then one day he came to a place in the sea where he could sail west. "At last," thought Magellan, "I have reached the end of South America."

Again he had a surprise. The next day one of his men shouted, "More land to the south! Land to the south!" But on to the west they went, sailing

closer to the shore all the time. Sure enough, there was land still farther south of them!

"Lights on shore! Lights on shore!" they shouted. What could these lights be? The ships sailed closer and closer. Magellan looked eagerly at the land.

"Fires! they are fires!" the lookout man up on the mast called down to the deck. "And there are wild-looking men running along the shore."

When they were quite near, Magellan and his men could see clearly. Fire after fire was burning all along the shore, and strange-looking men were running after Magellan's boat, shouting and pointing at them.

Magellan said, "This land shall be called 'the Land of Fire.'" In the Spanish language it is "Tierra del Fuego." Ever since Magellan's time it has been called that. The interesting half-wild people who lived almost naked in that cold land we now call the Indians of Tierra del Fuego.

Another Land with Interesting People

Magellan's ships sailed on and on and finally did reach the Pacific Ocean. He and his men had really sailed along the end of the continent, but there was still land to the south of them. This land was several



Harold Stohal

FIG. 16. Magellan saw fires burning and called the island *Tierra del Fuego*, "the Land of Fire"

islands — a large island and many small ones. It was the most southern large piece of land in South America. In fact, it was the most southern land on the earth on which any people were living.

On these islands lived very simple people. Some scientists think they were the simplest in the world. Others think they were not so simple as the African Bushmen, about whom you have just been studying.

When Magellan and the other white men went there several hundred years ago, there were thousands of these Indians living in the Land of Fire. They lived in four tribes. Some lived inland; that is, away from the ocean. They traveled about on foot. So we call them the Foot Indians. Some lived on the coast and traveled on the water. These were the Canoe Indians.

Since that time most of these Indian tribes have died. There are a few left, however, and we shall study them and their ways of living. We shall take only one tribe — the Ona, or Foot Indians.

A Picture of the Land of Fire

The big island, which is also called Tierra del Fuego, was the home of the Ona. Near the north



FIG. 17. Swamps and plains are on the north and east coasts of Tierra del Fuego



Museum of the American Indian

FIG. 18. Mountains run along the west and south coasts and disappear into the Atlantic Ocean

and east coasts the land is a flat plain, with grasses and low bushes (see figure 17). In some places there are great swamps, where men and animals sank into the soft mud and water. There it was very hard to find a place to live.

To the west and south are the mountains, running through all these islands and disappearing into the Atlantic Ocean. They are a part of the Andes Mountains that lie along the west coast of South America (see figure 18). Near the mountains trees and bushes grow, and on the low parts are thick forests. Here and there one finds lakes among the hills. Higher up the mountains are rocky, and snow covers them the year round.

This, then, is Tierra del Fuego, the land of the Ona. Here, long ago, several thousands of them lived. As we said, most of them have died. Today there are only a few left. But their ways of living are very much as they were hundreds of years ago. Let us read about a family as they lived in those days.

The Story of the Ona Family

It was a cold winter night. The wind was blowing wildly, and the snow was falling all about.



Museum of the American Indian

FIG. 19. The Ona need and use this little animal, the guanaco, for many things

The Ona family were trying to sleep behind their windbreak. This was a shelter made of animals' skins tied to a tree. At one place long sticks were stuck into the ground, and the skins were tied from the tree to the sticks, making a kind of roof. This was their home, the only house which they had.

Against the walls, on the ground, crowded the family. Father, mother, and children, as well as dogs, came close together in a corner to keep warm. Sometimes they moved closer and put their coverings more tightly around them. They shivered with cold.

In the morning the family awoke. The father wound his robe about him and came out of the windbreak. This robe was the only covering for his body. It was made of the skin of the guanaco and was painted red. A guanaco looks a little like a baby camel (see figure 19). Someone has said that the guanaco has "the neigh of a horse, the wool of a sheep, the neck of a camel, and the feet of a deer."

The mother came out of the windbreak. She too wore a robe made of guanaco skins. Underneath was a slip made of guanaco with the fur turned inward, and tied around the waist by a sinew, or cord, taken from a guanaco's body.

Two children, in their guanaco robes, came running out too. The only one who stayed inside the windbreak was the baby. He was wrapped in skin and tied to a cradle which looked like a ladder. One

¹ Unless otherwise credited the illustrations in this chapter are from *I miei viaggi nella Terra del Fuoco*, by Alberto M. de Agostini.



S. K. Lothrop

FIG. 20. Do you think "windbreak" is a good name for this Ona hut?



FIG. 21. The Ona are good hunters with their bows and arrows¹

end of the cradle could be stuck into the ground so that the baby would not get damp.

Everyone in the family wore moccasins. These are shoes made of the skin of animals. These were made of guanaco also and were worn with the fur outside.

Soon the fire was started and was burning brightly. The mother took the water bag and filled it with snow. Then she hung it near the fire so that the snow could melt. This would give the family water to drink.

The children gathered sticks for the fire. The father tied the dogs to a tree so that they could not get away and eat the food. Everyone had work to do.

The Ona family had only a little guanaco meat left in a bag. This was dry and tough, but the family ate it. Then the father decided he must go hunting. Tying a bag around his waist with a strip of leather, he picked up his bow and arrows.

"Come with me," he said to the little boy. "It is time for you to learn to shoot with the bow and arrow." The father gave the boy a small bow and some arrows. The boy was very happy. Now he too could hunt and go with his father to shoot animals and birds.

Father and boy started out. On and on they walked, watching the ground very carefully for the tracks of a guanaco or a fox. The father had many ways of knowing if an animal had been there. A broken twig or tracks in the snow showed him just what kind of animal it was.

Suddenly overhead flew some geese. With great skill the father aimed his bow. Away flew the arrow through the air. Down fell a goose. Again an arrow flew. Another goose fell. Then the boy aimed his bow. Down came another bird. He ran to pick the birds up. Back to the windbreak went father and son. "You will be a good hunter," said the father.

When they came back the father gave his bow to the mother. She hung it on a tree. Then he threw the geese on the ground near the fire. The mother did not look at the meat. The little girl did not look at the meat, either. To let anyone know their joy that the father had killed the geese, or that they had meat again, would not show good manners.

After sitting down for about half an hour the father said, "Why do you not cook the meat?" Then the mother began to take off the feathers and get the geese ready for cooking. She would not



FIG. 22. An Ona woman carrying her bag made of guanaco skin

touch them until the father had told her to do so, since the meat did not belong to her.

The family ate the meat of the geese and saved the feathers to use in making arrows. The father put them away carefully in a fox-skin bag, so that he would have them when he made the arrows.

So, many times, the father and the boy hunted for animals. Sometimes they hunted for weasels and other small animals. They would dig with sticks into the holes where the animals lived. After a time out would come a little ratlike animal. Then they would hit him with the stick and take him home for a good meal.

The Ona Family Move

One day the father said: "There are not enough animals left here for us to hunt. We must move to another place."

So the family started to pack their things. "Come and help me pack the things," said the mother to the little girl. First they had to pack the things which the family used in the home. We call these "utensils." There were the things which the Ona used to make a fire — a piece of iron, a piece of flint,

or stone, and a piece of soft and dry moss which would catch fire easily. By rubbing the flint and the iron together, sparks would fly and set the moss burning.

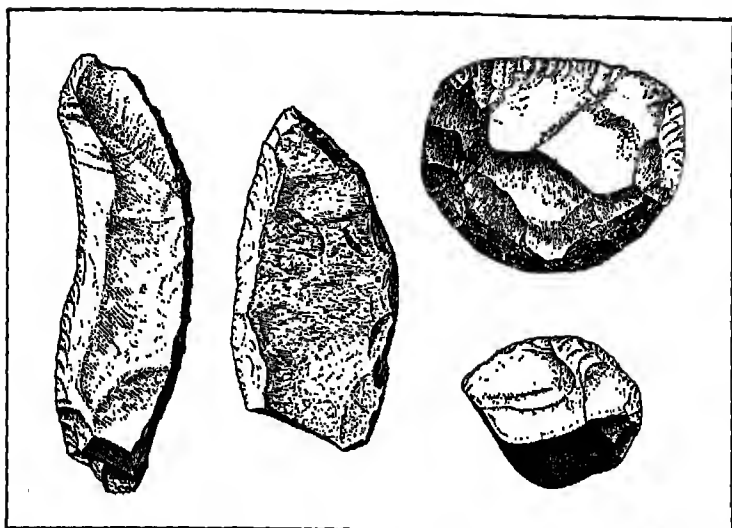
Do you think it would be wise to forget those things in packing?

Next there were the fire tongs. These are the sticks with which to poke the fire and keep it burning.

Then they packed the grease stone. This was a very smooth stone about five or six inches across. The hot bones of an animal were cracked on the cold stone. Out would run the marrow inside the bones. Then the marrow would cool, and the family scraped it off and ate it. How good it tasted!

Of course there were bags, all made of the skins of the guanaco or the fox. Some were for water; others, to store things. There was one for red paint with which the Ona painted themselves and their robes. The mother had one for her things, and the father had one for his. There were baskets, too, for storing things.

Although the pictures would make you think that the Ona never touched their hair, they did use a



S. K. Lothrop

FIG. 23. These knife blades of stone were the tools of the Ona

comb. This had to be packed too. The leashes to use to tie up the dogs must not be forgotten, either.

The tools had to be packed too. What are "tools"? A hammer is a tool. We pound things with it. The carpenter pounds nails into boards with it; the blacksmith hammers iron with it. An ax is a tool. We chop down trees with it. A saw is a tool. A knife is a tool.

What tools do you think the Ona family had? Do you think they had knives and saws and ham-

mers and other things of steel, as our workmen do? No, their tools were made of stone. There were knife blades cut from a large piece of stone. There were stone scrapers, which the Ona mother used for scraping the skins of animals. The father had a very heavy ax made of stone, used for cutting and breaking large animals.

The mother and daughter packed the things into the bags and the baskets. Then they began to take down the windbreak. The long sticks were taken down, and the large skins were laid out on the ground. Then all the other things were placed on the skins.

The whole thing was rolled into a pack which looked like a large cigar. The long sticks stuck out at both ends.

Then the mother took the harness, which was made of many strips of leather, and tied the pack to her back. It weighed nearly 200 pounds. Next she took the baby in her arms, and the family were ready to go.

The father carried the bows and arrows. Since the Ona family were hunters and had to depend almost entirely on animals for a living, the bows and arrows were very important to them.



B. K. Lothrop

FIG. 24. Painting a guanaco robe



FIG. 25. With house and all, the Ona move to a new part of their land

The father had made all his own arrows. Very carefully he had chosen just the right trees in the woods. He had cut just the right pieces out of them with his rough tools. The sticks were scraped and scraped until they were just the right shape. Then special stone tools for straightening and curving and polishing were used. The arrows were heated over a fire and straightened by holding them in the teeth.

The arrow points were made of little bits of stone

that had been sharpened very carefully. To help the arrow fly straight through the air, feathers were tied on the end.

The bows were very carefully made too. The father had got his bow from a fine bow-maker in a family living near. This bow-maker knew how to make bows better than anyone in their land. For a bowstring he took a tough cord called a sinew from the inside of the body of the guanaco. This made a strong bowstring.

What about strings to tie the tips and the feathers on the arrows? The guanaco again! Pieces of the hide had been scraped very thin. When they were cut into narrow strips they made fine strings that would not wear out quickly.

The father put all his arrows into a bag made of skin. This was called a quiver. He swung the quiver over his shoulder. He held the bow in his hand. The robe was wound around his body and tied over the left shoulder, leaving the right arm bare. Can you tell why?

Figure 25 shows you the family starting out on their journey.

The Family Meet Their Relatives

On through the forest went the Ona family. Sometimes they came to a pool where the ice had melted. Here they sat for a while to rest and eat the food from their bags.

Soon they met another family who were traveling. They were all relatives — cousins or uncles or aunts. These families who were relatives lived on this strip of land where they were. They owned it. They could roam the fields and woods and mountains with their dogs. Within their land they could sling their spears and their stones at birds. They could shoot their arrows at guanacos or trap the foxes as they ran along. On the ocean edge, along their own land, they could spear seals. But farther than that they could not go.

"This is the end of our land," said the father to his family. "Outside of this land we must not go. To do that would mean war with the people who own the next piece of land."

Thus the father of the family told the mother and children what to do. When several families came together, the oldest and wisest man helped

them to decide things. There was no king or other kind of ruler over all the country.

All day the families traveled together through the land. Sometimes the women went along the low valleys to scare the guanacos and foxes from their hiding places. Then, when the men and boys came close enough, they aimed the bows at them and shot them with their arrows.

As soon as a guanaco was killed, the father cut out the small lumps of fat near the eyes and ate them. How good they tasted! Then with his knife blade he cut and skinned the animal until he could make a neat bundle. He hung the bundle over his shoulder and carried it to the mother. "This is a good hunting ground," he said. "We shall live here for a while."

Then the mother put down her pack and, with the help of the girl, began to set up the windbreak and unpack the things. The Ona family would now begin housekeeping again.

War among the Ona

You remember that the father of the Ona family told the children about the edge of their land. He

said they must not go any farther or they would be captured or killed, and a war would start.

Sometimes war did come. An Ona hunter might see a guanaco on the other side of a stream. This was outside his land, but the animal was so beautiful, and he wanted it so much. Away would fly his arrow. Down would go the guanaco. He must go over to get it. Across the stream he went, even though it meant danger.

But a hunter from another group of families has seen him! The stranger has killed a guanaco on his land! That means war!

The Ona had three ways of settling such matters. First, they might have real war. Some families would come up without a sound to the enemy's camp, and a shower of arrows would start the battle. Back and forth the arrows would go. Clubs and stone axes and knives might also be used. Sometimes women and children would be killed or they would be captured and be carried away to live in the enemy camp.

Sometimes, instead of having real war, there would be wrestling to settle the quarrel. There were rules for wrestling, just as there are rules for a game.

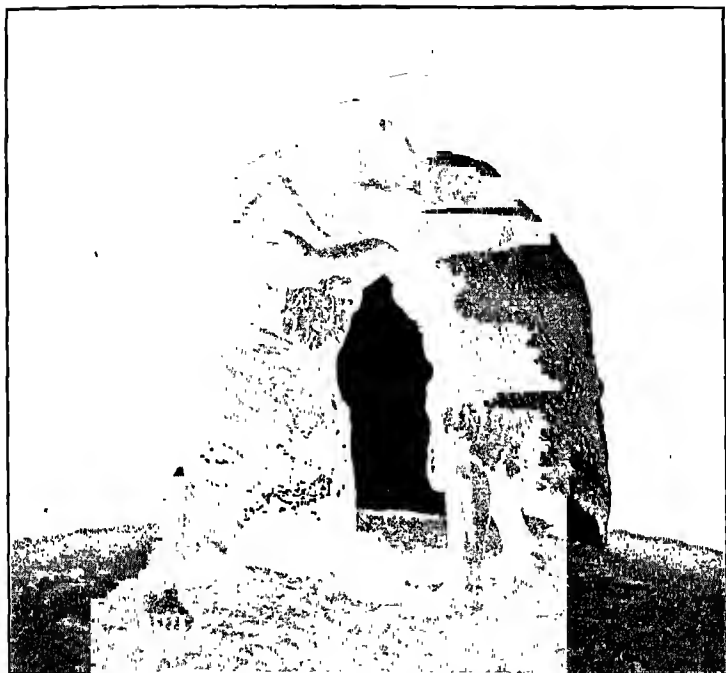


FIG. 26. Wrestling is a game as well as a way of settling a dispute

All the people left their bows and arrows at home. They came together to a place that they had chosen. Everybody came — the women and children as well as the men.

On one side of an open space was one group of families. They sat or stood in a half-circle, with the

men sitting in front. On the other side was the other group of families. They sat in the same way.

Next an old man who belonged to the families whose guanaco had been killed arose. Very quietly and carefully he told the people of the other families what they had done and what he thought of them.

Then one of the men of the old man's family rose, went across the space, and put out his left hand to a man on the other side. The man on the other side came forward. He put out his right hand and took the left hand, which was held out to him. Then the wrestling began.

As soon as one man was beaten, another man took his place. For hours they wrestled, until no more men came out to carry on the war.

Then the two groups went away with scowling glances and angry words, telling what they would do to one another when they next met. But during the wrestling they were very polite, and they did not speak words of praise to their own men but to their enemies, saying such words as, "You must be a fine man to do so well against my brother."¹

¹ Adapted from Samuel Kirkland Lothrop's *The Indians of Tierra del Fuego*, pp. 88-90. Museum of the American Indian, Heye Foundation, New York, 1928.



FIG. 27. An Ona warrior is strong and skillful

The duel or fight between two men was a third way of having war. If an Ona had an enemy in another band, he sent him a message. This would say, "I wish to fight with you." Then, on a certain day, this Ona would go near the enemy's camp. The enemy would come out and begin to shoot arrows at him. The first Ona would try to dodge the arrows, but at the same time would move nearer all the time. After the enemy had shot six or seven arrows at him, he would begin to shoot and either kill the enemy or keep him from getting near. Thus would end the war.¹

These, then, were the three ways of making war among the Ona.

Young Men Were Trained to Be Strong and Brave

You read that the little boy learned to shoot and to hunt just like his father. He learned to wrestle too, so that if his family were at war he could help them.

When the boys became young men, they had to go through a long, hard time of training. They were

¹ Adapted from Samuel Kirkland Lothrop's *The Indians of Tierra del Fuego*, p. 90. Museum of the American Indian, Heye Foundation, New York, 1928.

really going to a kind of school. For two years each lived alone, with only a dog for company. This trained them to live by themselves.

Then, too, they were given tests so that they could learn how to stand pain. One test was to stick sharp splinters into the young man's arms. These were set on fire and burned down to the arm until the fire really roasted the flesh. While this was happening the young man was supposed to talk to the older people as if nothing was happening. He was a very brave boy if he could joke and laugh while his arm was roasting.

It was necessary for every young Ona to be strong and brave and to have skill in shooting. He must go out and hunt and bring back food for the family, as well as protect the women and children from enemies. He could not be weak. He must be a man, a real man.

What Have We Learned from These Stories?

1. *The Ona Were Food-Gatherers*

The story of the Ona shows us that they, like the Bushmen, were not "food-raisers." They did not have farms and plant wheat and corn or other crops. They did not have cows or goats or sheep from which

to get milk and meat. They were "food-gatherers," depending on the animals and plants given them by nature.

2. They Were Their Own Beasts of Burden

They did not ride horses or oxen or donkeys or other beasts. They did not have trains or automobiles as we do. They walked, and they carried their belongings on their own backs. They were their own beasts of burden.

3. Their Houses Were Mere Shelters against the Weather

Why do you think the Ona made such a very light, simple house? The temperature was cold most of the time, and a strong house would keep them from being chilly. Do you think it was because they had to keep moving about hunting for food and could not carry heavy houses with them?

Perhaps there was another good reason. The Indians had grown to love the out-of-doors. They loved the openness of the plains and the woods. They loved the sky above them and the movement of the air and the wind against their faces. Perhaps they did not like being shut up in close houses. What do you think?

But the winters were uncomfortable. These Indians sat shivering around their fires behind their open-air windbreaks. Still we ask the question "Why did not each family build several strong huts in different parts of the land and go from one to the other in the cold winters?" That question we cannot answer. Perhaps they never thought of it.

4. *The Ona Were Good Workers on Tools and Weapons*

On some of their things the Ona spent a long time and did fine work. We say they were "craftsmen," because they did such good work with their hands. Their bows and arrows show their finest work as craftsmen. Their very lives depended on their bows and arrows, for with them they hunted their food and protected themselves against their enemies. So bow-making was very important, and skilled craftsmen took a long time and learned how to do it.

5. *The Ona Lived in Small Bands*

We have learned that the Ona did not live in large tribes but in small bands, a few families in each band. Each family took care of its own affairs. Each one ruled, or governed itself. Families that were related lived closer together on the same land. Only

in times of real need, such as in war or when wrestling matches were held, did the relatives come together. Sometimes a whale or other great fish was found on the coast land, and then they all gathered on the shore. Most of the time the families lived alone, and the oldest and wisest men in each of them told the others what to do. They were the real rulers. They made the government of the families.

6. Each Band of Families Stayed on its Land; Each Owned Property

Each band of families knew where its hunting ground started and where it ended. Generally it was a long, long strip of land which went back from the seacoast to the mountains. We have learned that only once in a while did an Ona leave his own land and go into the land of another. An Ona walking through the woods outside his own land took his life in his hands. Quietly an enemy's arrow might whiz through the air. Before he knew of his danger it would strike him, and down he would go.

And what skill and power these Ona had with their bows and arrows! White travelers have written many stories of what they have seen and heard. One

tells of an Ona Indian who shot an arrow 500 feet. It buried itself six inches in hard, stony soil. What strength these people had!

7. Each Place on the Earth Has a Certain Climate

In order to understand how people live on the earth, we must understand what is meant by "climate." It is partly because of the climate that the Bushmen of the Kalahari Desert live as they do. Our own people in the United States live as they do partly because of the climate. What, then, do we mean by climate?

First, we mean "temperature"; that is, whether it is hot or cold, warm or cool. You read that in the daytime in the Kalahari Desert it is generally hot. Sometimes it is 110 degrees hot (this is generally written 110°). Most parts of the United States never get hotter than 90° to 100°, and then only in the heat of the summer. At night it is cool in the Kalahari, perhaps 60° to 70°, but not often does it grow really cold at night. This is because the sun's rays strike the earth more directly there and give the earth more heat. In Tierra del Fuego it is much colder than in the Kalahari; in fact, it is colder than in

most parts of the United States. The sun's rays strike the earth less directly in Tierra del Fuego and so give the earth less heat.

When we speak of the climate, then, we mean, first, the temperature.

Second, "rainfall"; by "climate" we mean also how much it rains. In the Kalahari it rains only during two or three months of the year, and then not very much. We say the climate is very dry. But in Tierra del Fuego it rains during many months, and there is much water. It is a rather wet climate.

Perhaps you are asking, "How can you tell what the 'rainfall' is?" That is, how much rain falls in a day, or a month, or a year? Scientists have a way of knowing. They measure it.

This is the way scientists measure how much rain falls in one year. In an open place they catch the rain in a large, flat metal tank. After each rain they measure very carefully how many inches deep the water is. Perhaps in a very heavy rain lasting a day or two, it might rain one or two inches. In a very light shower lasting a few minutes or an hour, it might rain only a small part of one inch. The

scientists write down exactly how deep each rainfall is. At the end of the year they add all the number of inches it rained that year. That is the annual, or yearly, rainfall.

The government of each country has scientists who measure the rainfall. These numbers are put in reports and books, so that people know about how much it rains each month and each year all over the earth. Here are a few examples:

In the northern part of our country, where corn and wheat grow well, it rains about 30 or 40 inches a year. That gives a rather wet climate—one in which some crops grow very well. But the Kalahari Desert has only about 5 to 10 inches of rain a year. That is a dry climate. In a dry, sandy place, like the Sahara Desert or the Arabian Desert, it does not often rain. In such places very little grows. There is little vegetation, we say.

In Tierra del Fuego it rains much more, about 20 inches in a year. This is a rather wet climate, and there is enough rain for grass and bushes and trees to grow well. Animals can live there too, for they have plants to eat. And the Indians can live both on the animals and on the plants.

You can see how important it is to remember that climate means rainfall as well as temperature.

Third, "winds"; but by "climate" we also mean winds. You know how winds blow up storms of rain in the summer and storms of snow in the winter; how they seem to cool us on a very hot summer day and make us shiver with cold on a freezing winter day. We shall learn later how important winds are in making the climate what it is in different parts of the earth.

Other things also help to make the climate what it is. Mountains are one of these. Trees and other plants have something to do with it. We shall hear more about these later.

Remember, then, that climate means at least three important things. It means:

First, temperature — whether it is hot or cold.

Second, rainfall — how much it rains.

Third, winds — which way they blow and how strong they are.

CHAPTER V

To the Land of the Eskimos: More Food-Gatherers

To THE land of the Eskimos! That is our next trip. Perhaps you are thinking, "Where is this land of the Eskimos? What kind of land is it?" Let us find out.

The Eskimos live on our own continent — North America. Get out your globe and a large map of North America. Find where the Eskimos live.

From Alaska on the west to Greenland on the east, they live. Away to the north, on the very edge of the Arctic Ocean, some have their homes. From Banks Island, Victoria Island, northern Greenland, and northern Canada to Labrador and Newfoundland, on the south, you can see them.

How far away some of these Eskimos are from others!

And what differences there are in the climate and the land itself! Some Eskimos live in Greenland, 600 miles north of the Arctic Circle. Others live

1200 miles south of them, in Labrador and around Hudson Bay.

Some of those of southern Canada live in forests all the time. Others, along the Arctic coast, have never even seen a tree. Some live on the low lands, near the cold ocean. Others live on the high flat lands and mountain sides, never seeing the ocean.

About a quarter of them live in snow houses more than half of each year, but more than half of them live in tents and have never seen a snow house. A few, indeed, do not live even in tents, but use wooden houses much more like ours.

You can see that the Eskimos are scattered far and wide over this large space, and that they live in very different ways.

Traveling to the Very Far North

There are several ways of going to the Far North, to the land of the Arctic. Can you trace on the globe or map these ways to get to the home of the Eskimos?

Around Alaska

If you want to go by boat most of the way, start from Seattle, on the west coast of our country. Take

a steamboat there and go north along the coast to Alaska. Then you can go on horseback until you get to Fort McPherson, on the Mackenzie River. From there you could go along the coast in a sled drawn by dogs to Coronation Gulf. In the warm summer months of June and July you could go there by boat.

Some men have sailed in summer time around Alaska through Bering Strait, which separates Asia from North America. From there they have traveled along the northern coast.

By Boat down the Great Mackenzie River

The easiest way, however, is to start from the city of Edmonton, Canada. Let us go with Mr. Stefansson, a famous American explorer,¹ on one of his trips to find these people who live in the Far North.

From Edmonton we drive in a coach drawn by horses to Athabasca Landing. At Athabasca we take a small river steamer down the Athabasca River to a lake of the same name. Across the lake we go and down the Slave River to Great Slave Lake.

This lake is huge; and as we cross it in a rather

¹ You will find interesting pictures in his book, *Hunters of the Great North*.

large lake steamer, we cannot see land at all. Slave Lake is one of the largest lakes in North America.

After crossing the lake we must find the way into the Mackenzie River. An Indian guide, a man who knows the country, stands with the captain of our ship and shows him where to steer. Then we reach a great bay and sail all day across that. At last we come to the Mackenzie River.

Now we are off for a 1300-mile journey on that one river. Think of that! A journey longer than on the Mississippi, in the United States. And on a river that most people have never heard of — a river that flows north into the Arctic Ocean.

Day after day, week after week, we ride on that steamer — always to the north; always toward the Arctic, the land we think of as the land of ice and snow.

Finally we pass the village of Good Hope, and then the captain tells us: "You have now passed the Arctic Circle. You are now in the Arctic zone. Only 400 miles to the Arctic Ocean!"

Surprises in the Arctic

What a surprising country! Where are the snow and ice we thought we would see? Even as we go

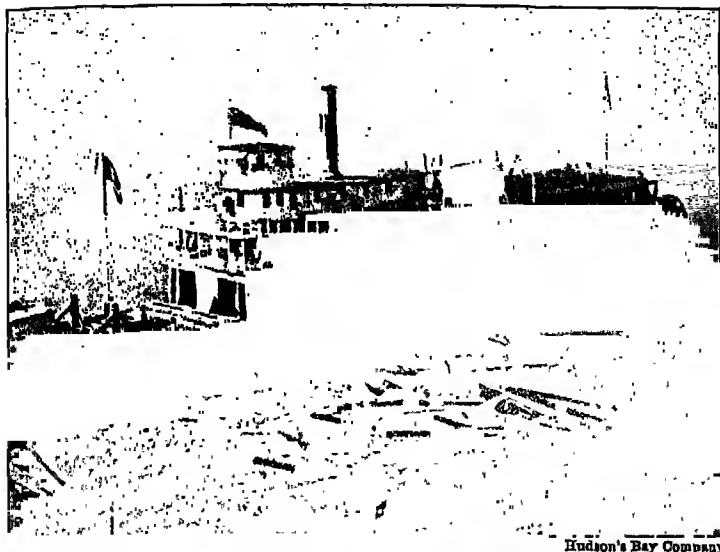


FIG. 28. The steamer that travels on the Mackenzie River to the Far North

down the last few miles of the great river it is as hot as summer in the middle of our own country. The thermometer on deck tells us it is 100°. How hot and sticky it is, and we wore our heavy clothes so that we should be ready for cold weather!

The fields along the river banks are covered here and there with beautiful flowers and ferns, mosses, and other plants. For many days now we have looked



National Museum, Canada

FIG. 29. Are you surprised to know that there are such beautiful flowers and butterflies in the Arctic?

out upon fine forests. Everywhere about us are birds and animals of many kinds. Can this be the cold, cold Arctic?

For a while we stop at a trading post, a place where people buy or exchange things. The white men show us potatoes, which they grow, and strawberries. Strawberries in the Arctic!

At Good Hope we walk through fine fields of wheat and barley. Here we are, finding wheat and

barley, 2000 miles north of the wheat fields of the United States and on the edge of the Arctic zone!

"But," our fellow travelers remind us, "it is June. It is summer. In just a few months all this will be frozen, and snow will cover all the land. Then the thermometer will mark zero weather; yes, even 10°, 20°, or 40° below zero."

What a country of changes, we think — 100° above zero in June; 40° below zero in January! Ah, but that is also true in some parts of the United States. Do you know how hot it gets during the summer where you live? how cold it gets in the winter? Perhaps the Arctic is not so different.

Another Surprise: Mosquitoes in the Arctic!

There are millions of mosquitoes, and how they can bite! Whenever our boat ties up on the shore and we go on land, we can hardly stand them. One well-known traveler said in his book about the Arctic that if he held up his hand without gloves, in five seconds 100 mosquitoes would light on it.

The travelers on our boat all wear a kind of mosquito netting around the head and shoulders. Even then, however, some of the insects find their way in.



FIG. 30. Even the dogs are bothered by the mosquitoes

**Another Surprise: In the Summer the Sun
Never Sets!**

Without our noticing it the days have been getting longer and longer. By the time we have reached the Arctic Ocean, at the mouth of the Mackenzie River, the daylight is 24 hours long. During that time the sun never sets. Round and round the sky it goes, never dipping below the horizon, that line where the earth and sky seem to meet.

Can you tell why that is? You learned something about it in your study of the seasons.

In June, July, and August some of the Arctic people have several weeks of daylight all the time. As you can see, the earth is tipped in the same direction all the time as it goes round and round. In the summer the north pole is tipped toward the sun, and the land in the Arctic zone is lighted by the sun's rays most of the time. But in winter the north pole is tipped away from the sun. Then it is dark most of the time.

Now we can understand why things grow so well in this northern land during the summer months. There are two reasons. One is that the sun shines

for so long. There is little wonder, then, that potatoes and strawberries and wheat and barley grow well. In a month of so much sunshine they grow as fast as they would in several months in our country.

But why do not the wheat and other crops dry up and die with the sun shining down on them so long? It hardly ever rains in the summer in this Arctic land. Where do all the plants get their water?

The answer to that question will give you the other reason. And that is another surprise. They get their water from deep down in the ground. From September to April the ground is frozen. This means that the water is frozen in it. Then in April it begins to thaw or melt and come out of the ground. The top of the land becomes wet and soft. Wheat and vegetables can now be planted. As the days pass, the frost that is deeper and deeper begins to thaw and come out of the ground. The plants now get their water from this thawing frost. However, if you should dig down deep enough, even in summer, you would find ground that was still frozen.

You can see now that the sunshine and water help things to grow well in the summer.

The Mackenzie River Flows into the Arctic Ocean

We go on, passing the town of McPherson, and then enter a large bay. We must surely be in the Arctic Ocean now. No, not yet. This is the Mackenzie delta, we are told.

The river, rushing along, has carried mud and sand with it. Small stones and rocks have come along too. Soon the river becomes heavier and heavier with soil and gravel. The water moves more and more slowly.

As the river gets near to the ocean, mud, or "silt," gathers in many places. More and more it gathers and piles up the soil and stones which it has brought with it. Finally these become high enough to show above the water. They become islands. Many of the islands can be seen above the surface of the water.

As these islands grow, the water goes in and out among them and forms a sort of giant bay. Broader and broader the river spreads out. It seems to have many branches. In this way the river builds up new islands at its mouth. This land where the river pours its waters through many mouths instead of one into an ocean or a sea is called a "delta."

There are many great river deltas on the earth. The Mackenzie delta is one of the largest, more than 100 miles long. The Mississippi River, which flows through the United States into the Gulf of Mexico, has an even larger delta. It has pushed land out into the Gulf 200 miles. Every sixteen years a new mile of silt is built up.

Another Surprise for Us: in the Mackenzie Delta It Is Cooler!

No sooner do we enter the Mackenzie delta than we feel a change in temperature. Every mile we travel north it becomes cooler, not slowly, but rapidly. When we reach the place where the river has become like a broad bay, the temperature has dropped from 100° to 50°. This is one of the ways large bodies of water help us. In summer they cool us.

Our thick clothes are now a great comfort. The mosquitoes alone are unhappy, for they like hot weather. Soon they will die because it is too cold.

At last we have reached the Arctic Ocean; at last we can look out on the sea around the north pole. There is water everywhere beyond the coast — cold water, of about freezing temperature. On the

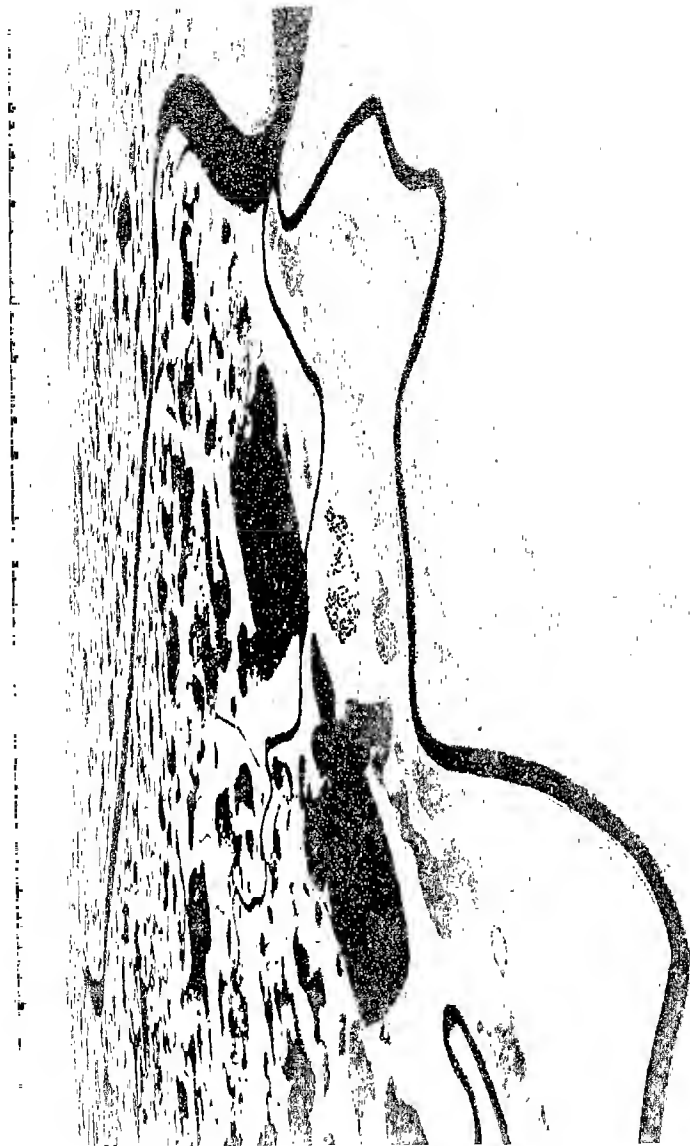


FIG. 31. The branches of the Mackenzie River make this great delta

land there are no trees, although only 30 miles back there were evergreens along the shore. But even here, on the edge of the Arctic Ocean, there are grass and bushes, moss and ferns, and low shrubs. These will grow all through July and August.

Finally we arrive at Herschel Island, the place where many Arctic ships stop. We have come to one region or part of the country where the Eskimos live.

The People Themselves

Who are the Eskimos? Where did they come from? Are they one people or a mixture of many?

No one knows exactly the answers to these questions. We do not even know where the name "Eskimo" comes from. Some think it came from an Indian word which meant a people that ate their food when it was raw. This might be true, because some of the Eskimos do eat their food before it is cooked.

Where did they come from? It is thought that most of them came from the south. Most scientists think that several thousand years ago their people lived in the woods north of our country. That is more than 1000 miles from where they live now.



Museum of the American Indian

FIG. 32. These Eskimo women live in different parts of the north. Those on the left are from Baffin Island; the middle one is from Alaska; the one on the right is from the delta of the Mackenzie River

What caused them to move north? No one knows. It is believed that they moved slowly in little bands and finally reached the Arctic Ocean. Some stopped there, around Coronation Gulf and Victoria Island. Some went to the west along the Arctic coast as far as Alaska. A few even crossed over Bering Strait to live in Asia. Others went east toward Greenland and south to Labrador.

Yet even today, although they live so far apart, these people seem in some ways to be one people. Most of them look very much alike. Look at the pictures in figure 32. They are pictures of Eskimo women of different places. Do you think that the Eskimos of Baffin Island, of Alaska, and of the delta of the Mackenzie River look alike?

Almost in the middle of this land to which we have traveled live the Copper Eskimos. These Eskimos alone have copper and have learned how to make tools and utensils of it. A small group they are—only a few hundred families, living close together in the winter and scattering in the summer. Knowing one another well and visiting back and forth, they have a happy, jolly time. Let us see how life goes on in this Arctic land of the Copper Eskimos.

CHAPTER VI

The Copper Eskimos: Food-Gatherers of the North

The People Who Had Never Seen White Men

CAN YOU find on the globe or map where the Copper Eskimos live? First find Canada, the country just to the north of us. Next find the Arctic Ocean, which fills the space from the north pole to Canada. Next find in the Arctic Ocean a big island called Victoria Island and, just south of it, Coronation Gulf.

Now trace your pointer around the land near Coronation Gulf, taking in the southern part of Victoria Island. This is the homeland of the Copper Eskimos.

Until only about 20 years ago these people who are called Copper Eskimos had never seen white men. They did not know that people lived in Canada and in the United States. They thought the land to the south of them was much like their own land. No one knows how long they had lived in the

Arctic land, knowing no other kinds of people except their own.

Then white men, scientists, went to the Arctic to study the people there. One of these, Mr. Jenness, went to the land of the Copper Eskimos and lived with them for a long time. Each day he wrote in his diary (a book in which he kept a record of what he did) what was happening in the families. Let us read a bit from his diary and imagine we too are living with the Eskimo family.

Winter Life among the Copper Eskimos

Moving to the Sealing-Grounds

About four o'clock one December morning we awoke in the snow hut of our kind Eskimo friends, Ikpakhuak and his wife, Higilak. This is the day we move off the land and out onto the ice of the gulf. We must start at dawn because the day is so very short.

For days Ikpakhuak and his neighbors have talked about leaving. The ice is safe now, and the seals can be caught. Food is getting rather low. For the last three weeks we have had only dried meat, frozen fish, and pieces of seal fat that were brought in from the hiding-place where we left them last spring.



FIG. 33. The men are meeting together to make plans. How do you like those long coats of fur?

Only last night Higilak told her husband that the winter clothes were all finished. How well she had made them! All day long the other women of the near-by huts had been sewing too. When they were not busy cleaning the snow houses and cooking the meat and fish for the men, their needles of bone went back and forth through the skins. Even Haugak, the little twelve-year-old daughter, has learned to make a fine seam, and she had done much of the sewing this year. It will not be many years now, Higilak, before your daughter will be leaving you. She will make a good wife for some strong hunter.

Now the winter days have come, and the ice is strong enough to hold the hunters. It is time to move far out on the ice and catch some seals.

No sooner do we awake than we hear the men and dogs of other families as they move about. A neighbor crawls into the low doorway of our snow house to say: "Okalluk is packing up. We are going."

Out of our sleeping-bags we jump and put on our heavy deerskin boots and trousers, coats and hats and gloves. Already Higilak has breakfast ready. There are only a few pieces of frozen deer meat, but these will give us enough strength to work.

Ikpakhuak has taken the long sled down from its place and is "icing" the runners. He scrapes the old mud off with his knife, then takes a mouthful of water and squirts it along the runner. The air outdoors is so cold that the little stream of water begins to freeze onto the runner. As it freezes, Ikpakhuak rubs the runner with a piece of polar-bear skin. This makes it smooth so that the heavy load will slide easily along on the snow.

Packing up goes on very quickly. While the children harness the six Eskimo dogs to the sled, Ikpakhuak cuts a large hole in the snow house. We help Higilak pass out the family things from the inside. You never saw such packing for a trip. There are bundles of spring and summer clothing in sealskin bags. The stone lamp (see figure 40) and the cooking-pot must not be forgotten. Seal fat, called blubber, is packed into another sealskin bag. Then comes the bed-matting, made of willow twigs, on which we have been sleeping. The wooden table and the side-pieces that held it to the wall of the house have been dug out of the ice and packed on the sled. Then such a lot of little things have to be put into the bundles and tied with cords made of strips of hides.

There are socks and shoes, pieces of skin which are used as napkins at mealtimes, pots and tins, poles, sticks, and other things. You can see some of them in figure 34.

At the last minute Higilak must change from her greasy working suit to her fine suit trimmed with fur. One must wear one's best when traveling, in Eskimo land as well as in our own United States.

Finally all is ready. We are off, along with twenty other families. What a fine sight it makes as the dog teams and the people pull the sleds across the snow, one behind the other! A real caravan! We all pull too, for nobody rides except the babies and the very old or sick people who cannot walk. Higilak, the woman, pulls far ahead with the dogs. Ikpakhuak and we pull in front of the sled.

On we go for two or three hours. Then we rest a while and have a lunch of frozen deer meat. The whole band of families gathers round and talks about the jolly dance we had last night.

The children play at their games. They throw snowballs at one another, push and pull one another, or play hide and seek. With a knife one of them cuts an animal out of a block of snow, and the others



Eskimo Museum, Canada

FIG. 34. The Copper Eskimos on their way to the hunting grounds

rush up and chop off its head. Some of the older people "skip rope" and run races to keep warm.

Rest time is over. On we go again, pulling and tugging to help the dogs over the little hills of snow and ice. Then we hurry along easily when we reach a place going downhill.

Two more hours pass. Then Ikpakhuak, watching the sky, says: "Getting late. We've done eight miles today. Better camp here. There's a sealing-place near by."

Building the New Snow Village

Night is coming. The men know that they must leave time to build snow houses and unpack before dark comes on. The caravan stops. Ikpakhuak, the leader, digs about in the snow until he finds a good firm place and then says to Higilak, "We'll build the house here." While she and the children take the harnesses from the dogs and untie the things on the sled, we help Ikpakhuak to build the house.

Ikpakhuak takes his long sharp knife. In a place where the snow is firmly packed together, he begins to cut blocks for the house. They look like huge snow dominoes, as you can see from figures 35-38.



FIG. 35. The first blocks are set so that they will lean toward the center



National Museum, Canada

FIG. 36. More blocks are put on the first layer

The house is to be a round one. Ikpakhuak sets his first block in place. He cuts a piece from the lower inside edge of the block so that it will lean toward the center.

The same thing is done to the next blocks as they are set against each other. Finally there is a whole row in a circle. The air is so cold that as the blocks are put down they freeze firmly together.

Now for the second row. Ikpakhuak has made a cut in the first row so that the second can be held up by the first. Then he places the new blocks on the first ones. They too lean toward the center, even more than those of the first row. Each new row must lean toward the center more than the one below it. When this is done, the house will have a dome-shaped roof as in figures 37 and 38.

Finally the last block is placed. But there is no door to the house! Instead of making a hole in the wall, Ikpakhuak digs a tunnel underneath the house. This opens into the floor. A door in the wall itself would let in too much cold. He builds the tunnel of snow blocks out a long way from the house. This makes the way in look very long, and the door is far away from the living-room. This keeps the room warmer.

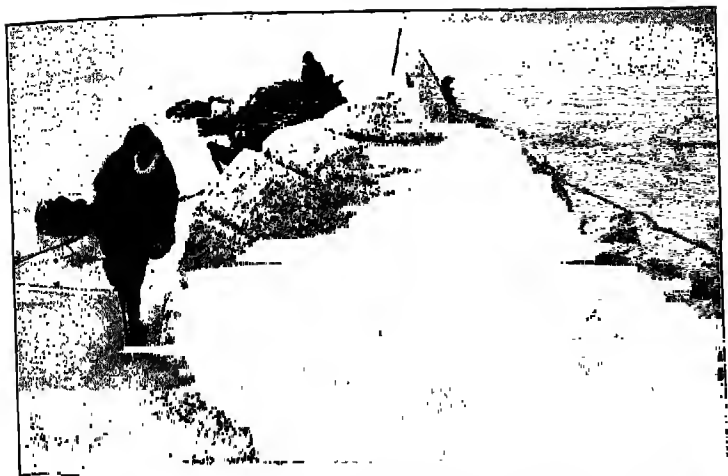
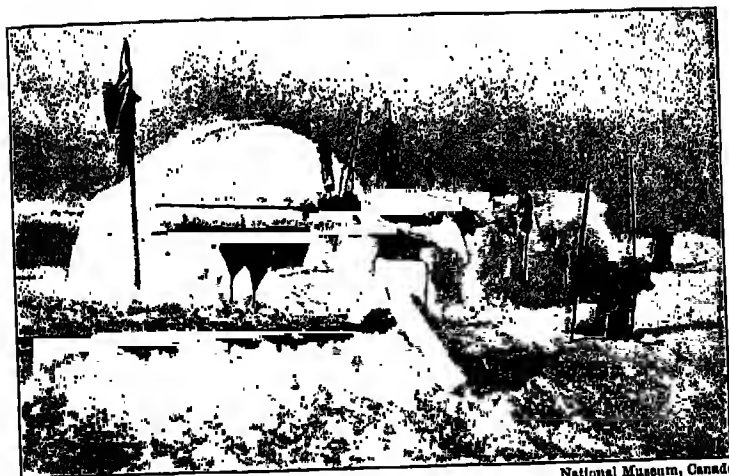


FIG. 37. The house is finished except for the center block of snow



National Museum, Canada

FIG. 38. A snow house ready for the family to live in

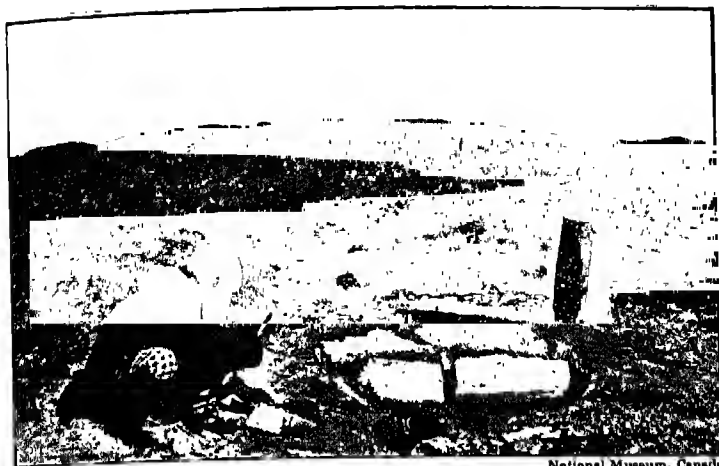
Ikpakhuak and Higilak fill up the cracks in the house with soft snow. Then they spread the furs and skins from the sled on the floor.

Now the house is finished, except for "freezing." How is that done? A very hot fire is lighted in the house. When the snow on the roof begins to melt, the fire is put out. The melting snow freezes into a thin layer of ice. This makes the house much stronger than it was before.

While Ikpakhuak has been finishing the house, Higilak has been clearing the snow sleeping-platform, which is along the wall. Then she lays the mats of twigs on the platform. On top of the mats are laid some heavy skins.

The deerskins come next. There are two layers. The first layer has the fur down, the next layer has the fur up. Higilak is very careful to lay the skin so that the fur will be turned toward the door of the hut. This is so that it can be swept off easily. Then the sleeping-bags, the men's tool bags, and the women's sewing bags and all sorts of other things are scattered on the sleeping-platform.

The drawing of figure 41 shows you how the table and the lamp are arranged in front of the sleeping-



National Museum, Canada

FIG. 39. This Eskimo is pounding his lamp out of stone

platform. Notice the board that is stuck into the wall of the hut. And notice the lamp over which the cooking-pot will be put.

You can see the lamp better in figure 40. Perhaps you are saying, "What a little lamp to heat the pot and the

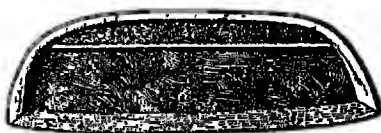


FIG. 40. A stone lamp

whole house as well!" It does seem small, indeed. But some of these lamps give out much heat, and the houses are very warm. Others give only a little heat, and the people shiver or go to bed in their

sleeping-bags to keep warm. Sometimes it takes an hour to heat the fish and meat enough so that the family can eat it.

This is what the Eskimos own — a simple house and a few belongings. The house is built and finished in two hours. We may live in it a day or two or even two or three weeks. How long we stay will depend on the seals. If we find many of them, we shall stay some time; if not, we'll move on in a day or two.

This house of Ikpakhuak's is a single hut. All around it are the huts of the neighbors. Some of the families built their houses together, in a kind of half-circle, with the door of each one facing the dance house.

The dance house is the large place where the people meet to talk and dance. Whenever guests come from far away, the families hold a dance for them. All work stops, and a feast is held. Sometimes it goes on for several days. It lasts until the food is gone; then the men must go out to hunt for more.

Our First Seal Hunt

Moving day has been hard work. We have been at it since four o'clock this morning and are ready



FIG. 41. The inside of a Copper Eskimo's snow house

for a "dinner" of frozen meat. Then into our sleeping-bags we go for a long, long sleep.

At eight o'clock next morning we are waked up by a neighbor who pokes his head in the low door and says, "We are going to the sealing-grounds."

We dress quickly and set out, eating a piece of frozen meat as we go. We are looking for the place in the ice where the old Eskimos know there will be some seals. For three miles we tramp over the snow-covered ice. Then one of the men says: "Here it was that the seals came last year. The dogs will find their breathing-holes."

Sure enough, the dogs go sniffing about to find the little holes that the seals have gnawed in the ice. From time to time they must stick their heads up into the air to breathe. Suddenly a dog stops and scratches in the snow. "He's found one," comes the shout. We hurry to the place where the dog is. Ikpakhuak scrapes the snow away from the spot. Looking down, we see a small hole in the ice.

Ikpakhuak drops a small piece of bone tied to a string into the hole. This piece of bone is called the indicator. The other end of the string is driven into the snow with a peg. As soon as the indicator moves,

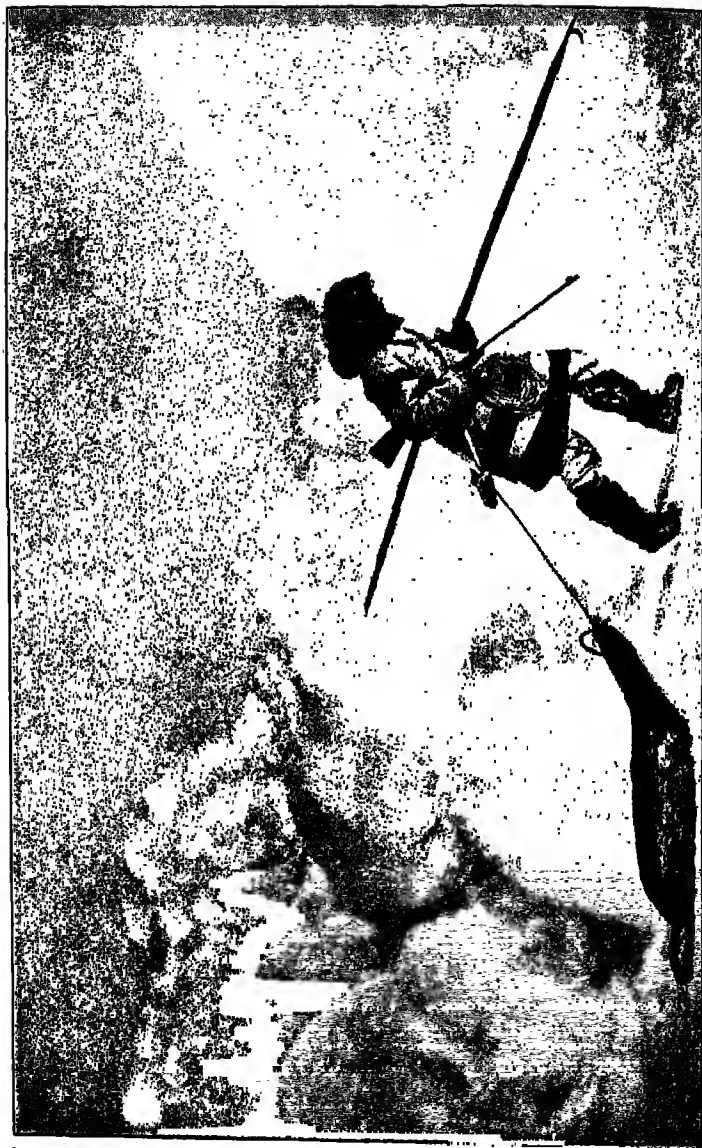
the hunters know that a seal is near and they get ready to strike him with their spears.

Now starts the long wait. We stand or sit perfectly quiet on cakes of snow. To keep our feet from freezing we put a bearskin foot-pad under them. One hour passes. Two hours pass. Nothing moves the indicator. Then suddenly it shakes a tiny bit. Ikpakhuak rises quickly and holds his spear, or harpoon, high in the air. Something pulls the indicator farther into the hole. Like a flash Ikpakhuak hurls the copper-tipped harpoon, straight down into the hole, holding onto the strong hide cord tied to its end.

"It's a hit. Call the men quickly," he shouts. The men come running to help him. They hold the cord, on which the seal is now pulling with all his might. "He's a big one. He can pull hard," they say.

Some of the men chop the ice until the hole is bigger. For a long time they pull against the seal. Finally he gives in and is pulled up out of the water. Then what a great shout goes up: "Hurrah for the seal!" A big one he surely is!

Then a surprising thing happens. The men are so hungry for fresh food that they cannot wait to drag



National Museum, Canada

FIG. 42. Bringing home a seal



National Museum, Canada

FIG. 43. Dressing for the feast and dance. What a gay time it will be!

the seal home to have it cut up and cooked. They jump on it with their knives, chop out pieces, and gobble them down. They want it so much that they cut each other's hands while getting it. Even though they know there will be plenty for all, they must eat this first seal meat of the winter.

Finally they become quieter. Ikpakhuak and one of the men carve the seal into pieces. Then we all go home, and the village of snow huts is the scene of a great feast.

After everyone has eaten, the dance starts. All the neighbors come into the larger dance house in their "best suits." They sit around in a ring to watch the dancers and to sing for them.

The first dancer, who is a woman, takes the drum and steps into the ring. She begins her dance with a few beats on the drum. Then she starts to sing.

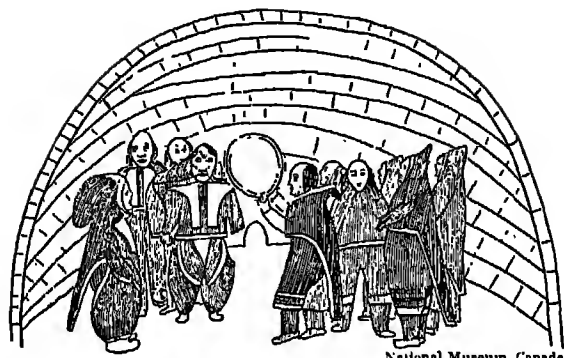
Everyone who knows the words joins her in the song. When it is well started, she begins to dance. Around and around the ring she goes, beating the drum and swaying from side to side.

When she has finished, a man takes her place. He too begins by beating the drum. Then, when his song is started, he passes the drum on to another



National Museum, Canada

FIG. 44. A Copper Eskimo and his drum



National Museum, Canada

FIG. 45. An Eskimo's drawing of a dance in the dance house

man. Then he begins a wild jig, waving his arms in the air and turning round and round.

"Louder, sing louder," he calls to those on the edge of the circle.

They do. He shouts with joy. Round and round he goes, hopping first on one foot and then on the other.

New dancers follow him. Sometimes two are in the ring at the same time, dancing and moving around each other.

Louder and louder are the voices. Gay and gay are the dancers. At last everyone is worn out with the fun, and one by one we go to our houses and to bed.

So the winter months of December, January,



FIG. 46. The caribou is the great deer of the north

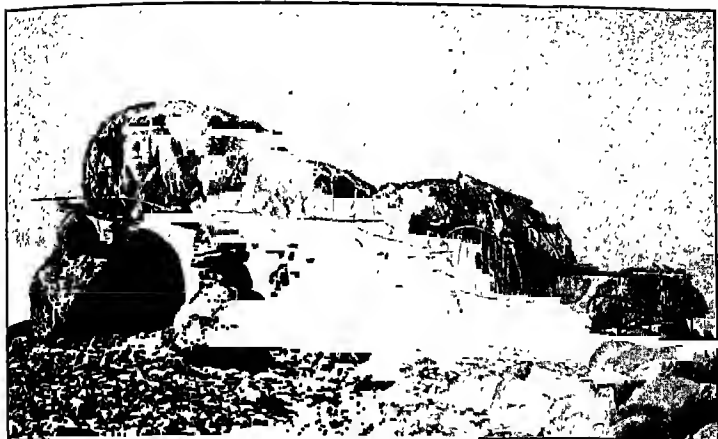
February, and March slowly pass. On the fair days the men go sealing or hunting for caribou, which is the Eskimo's deer, or other animals. Now the women have their easy time of the year. While the men are gone they clean and arrange the house and perhaps mend old clothes. It is a rule that no new clothing be made during the long winter months, when the sun is low. They chat with their neighbors and get the husband's evening meal ready for him.

Visitors from other camps drop in from time to time. Then all work stops, and feasts and dancing take its place. These last until the food is gone. Then the men go out to hunt seals and caribou again.

After days have passed without catching a seal, the Eskimos know that they must pack up and move. Then one of the men tells his wife to begin. The word is passed around, and the next day the whole village moves out. They travel until another sealing-ground is found. Perhaps it is ten miles away or even farther out on the ice. Then they build new houses which look quite like the old ones they have left behind. Several times during the winter the Eskimo families move along, always going where the food is.

Then, in March and April, as the days get longer and warmer, the people begin to talk about the summer moving. Back to the land they must go. Carefully they watch the changing season. They know they must pack up their winter clothes and other things and leave them in a safe hiding-place where wolves and other animals cannot get them and eat them.

So there comes a day in spring when the Eskimos pack up again and make a quick trip to an island near by. There they pile great stones very high. On



National Museum, Canada

FIG. 47. The cache: winter clothes are laid on the piles of stone so that animals will not take them

top of the stones is tied a huge bundle of their winter belongings. This is their "cache," their place for keeping things safe. Here they will leave many of their things until autumn comes again. When the cold weather returns they will be back to get them. Sometimes other tribes steal them, but not often does that happen.

Summer Life among the Copper Eskimos

In summer the life of the Copper Eskimo changes once more. The sun is up all day long. It never

sets. Around and round it goes, melting the ice and snow. At last the ground can be seen. Then the brown earth quickly changes to green. Grasses and flowers grow. The birds are back again. At night a hoot owl is heard. Then herds of reindeer show themselves far off. Ducks and geese and squirrels and many other kinds of animals can be seen.

In summer the Copper Eskimo's house is different. It is a tent of poles and skins instead of a snow house. Even in March the weather is warm enough so that the snow house begins to melt. Drip, drip, drip, it goes all day long. So some Eskimos build a new kind of house, part of it a tent and part of it snow. They lay a wall of snow cakes and then put heavy skins on top for a roof.

But most of the families move to the land and get their summer things from the cache. The tents of heavy deerskins are put up on poles. They are quite large, about fifteen feet long, ten feet wide, and seven feet high. They are very comfortable too, except in storms, when the wind howls and the rain and the snow beat down.

The Copper Eskimo's clothes are different in summer, too. Now he wears sealskin coats and trousers,



FIG. 48. Sometimes the house is made both of skins and of snow



National Museum, Canada

FIG. 49. The summer houses are usually made of skins, however

which are thinner than the skin of the deer or bear. His boots are of sealskin too. They wear well in the soft, slushy snow.

The villages break up, and each family or small group of families goes its own way. Many of them go to the lakes on Victoria Island. The men spend their days catching trout and other fish in great nets. Early in the season millions of salmon swim up the creeks and rivers. Up the Coppermine River, up the rivers of Victoria Island, they go in great numbers. The Eskimos spear them easily at this time of the year.

Large numbers of these fish are caught and stored, because the Eskimos know that in the early winter there will be little food. Caribou will be hard to find, and seals cannot be caught until December and January, when the ice is very thick. So they fish and hunt while the warm weather lasts.

Some weeks there are feasts when they find a herd of caribou and shoot several of them. Sometimes the caribou are driven into the lakes or bays, and the Eskimos go out in narrow boats called kayaks and kill them in the water. Those Eskimos who go far south toward Great Bear Lake in the summer also kill the large musk oxen.



Ewing Galloway

FIG. 50. These girls are starting out in a kayak, the Eskimo boat



National Museum, Canada

FIG. 51. Twang will go the arrows at the seals in the distance!

At other times there is little to eat, for the hunting has been bad. Now they catch and kill any kind of animal that they can find, small as well as large. They kill birds with arrows or even with stones. They hunt for duck eggs. Bravely they attack brown bears and wolves and even big polar bears with their spears.

The Copper Eskimos Exchange Things

Today when we buy things at a store we pay money for them. We give the storekeeper coins, or dollar bills, or a check. That is "money."

Did you ever trade things; that is, exchange things with your friends? A knife for a whistle? or a doll for a purse? That is really a kind of buying and selling. It is a kind of "trade." It is "barter."

The Copper Eskimos exchange things today. They have some things that the other Eskimos do not have. For one thing they have copper with which to make knives and spears and other utensils and tools. The copper can be found on top of the ground. The other Eskimos have wood; so the Copper Eskimos trade with them, exchanging their copper for the wood.

The Indians who live far to the south of the Eskimos have guns, which they get from the white people. The Copper Eskimos want these guns. They have learned that caribou and other animals can be killed much more easily with guns than with bows and arrows. So some of the Eskimos go south each spring to meet the Indians, who come north. They make a market and have a great trading time. The Eskimos barter their deerskins, sealskins, fox skins, and copper for the Indians' wood, their guns and powder, and their saws, axes, and other tools.

It is like this: "You make something, I'll make something, and we'll exchange." That is barter. As you study about the world, you will learn of many other people who exchange things instead of using money to buy them.

The Copper Eskimos Are "Slaves of Nature"

We have met food-gatherers before. The Bushmen of the Kalahari Desert and the Ona of Tierra del Fuego are food-gatherers. They gather whatever food nature has given them. We say that they are slaves of nature.

The Copper Eskimos are also food-gatherers. They



Spring Gateway

FIG. 52. What a good catch this polar bear has been! The men must pull with all their might to get him onto the ice

too are slaves of nature. If there are fish in the waters, they kill and eat them. If there are animals on the land, they kill and eat them. That is all they have to eat — fish and meat, meat and fish. They never eat potatoes, tomatoes, cabbage, or bread. They eat only what they can catch and kill. And what they can catch and kill is decided by the changing seasons.

Do the Seasons Change Your Way of Living?

Think of the ways we live during the changing seasons! In winter the sun is low and only shines a short time each day. It becomes very cold. Then we wear warm suits and dresses and overcoats. Then we live indoors much of the time. We shut our houses up tight and heat them with furnaces.

In summer time all is different. We throw the windows and doors wide open. We stay out of doors as much as we can. We run electric fans to keep us cool. We ride outdoors in automobiles. We take our vacations in the summer, and, if we can, we go camping, or to another town or city, or to the mountains or the seashore.

For some people their work changes too. Those who work out of doors on high buildings, or digging in the ground, or plastering the walls of new houses, must stop when it gets too cold or too snowy in winter. Their best seasons of work are the spring, the summer, and the autumn.

So we see that in our own country we change our ways of living as the seasons change.

The Changing Seasons and the Copper Eskimos

As you saw, the Copper Eskimos change everything as the seasons change. They change their houses, they change their food, they change their work. And they go to live in another place, sometimes a hundred miles or more from their winter home. Let us think for a moment of the ways in which the seasons change in the land of the Copper Eskimo.

1. *The Long Cold Winter*

From the middle of November to the end of February.

The sun can hardly be seen over the horizon. At noon one can see it just over the edge of the land. In December it has gone entirely, and there is little light. It is cold; oh, so cold! The thermometer stands below zero, sometimes 20°, 30°, even 40°.

2. *Early Spring*

Early March to late April. The northland tips still more toward the sun. In May, as the tipped earth turns, it shows more of the northland to the sun. The daylight grows longer; the nights are shorter. The sun shines and the air becomes warmer. The snow begins to melt.

3. *Real Spring*

From the end of April until all the snow is gone from the ground the midnight sun appears; it is light all the time. The snow melts rapidly everywhere. The ice on the rivers and lakes thaws. The first birds are back building their nests. The moss grows quickly under the warm, never-setting sun. Now the caribou are back nibbling the moss and the grass in small bites.

4. *Summer*

July, August, and early September. Now the Copper Eskimos change their ways of living. It is very warm, even 70° above zero on the Arctic coast, and from 90° to 100° farther south, away from the water. The sun shines all the time, a little lower at midnight than at noon. Round and round it goes.

It is really hot at noon, and in some places millions of mosquitoes and insects are back again bothering everyone. The people sleep in tents, or even out of doors in their sleeping-bags. The ice is gone from the smaller lakes. The rivers are rushing along to the sea. Bees and butterflies are in the air, and the birds have come back from the south.

Many interesting wild animals are in the valleys and woods. Green grass and trees and bushes can be seen.

5. *Autumn*

Part of September, October, and to the middle of November. Lower and lower goes the sun. Cooler and cooler it gets. The light skin clothing is put away; the heavy skins are put on. Shorter grows the day; longer grow the nights. Snow falls. The tents are put away, and the people build their snow houses. The ponds and little lakes freeze up; next, the big ones; then the rivers and the gulfs and bays; and, finally, the Arctic Ocean itself. Almost all the birds fly south and are gone from Eskimo land. The caribou go south again. Polar bears are to be seen. In late November winter has come again. It is zero weather. Snow covers everything. Once more the Arctic becomes the cold north-land.

Around and around the earth goes, around and around the sun, always tipped in the same direction. Part of the year the north pole points toward the sun, and the Eskimos have summer; part of the time it points away, and then they have winter.

What important things the sun and the earth do to the ways that people live! In this way men are "slaves of nature."

Did You Enjoy the Stories of the Copper Eskimos?

This finishes our story of the Copper Eskimos. As we have already said, these Eskimos are only one band of a few hundred families. There are many other bands — other kinds of Eskimos. Some are in Greenland, in Labrador or near Hudson Bay, or in Alaska. In some ways they are like the Copper Eskimos; in other ways they are different.

If our book could be longer we would tell stories about the Eskimos of other parts of North America. Perhaps you can find some books which will tell you about these people.

Are the Eskimos as Simple as the Ona and the Bushmen?

Perhaps now we can answer that question. Think over what you read of how the Ona and the Bushmen and the Copper Eskimos live.

First, they are all wandering food-gatherers. They do not grow crops nor do they have pigs, cows, hens, or other animals except dogs.

Second, the Ona and the Bushmen do not live in

closed houses as the Eskimos do. They live only behind windbreaks and in rough bush huts.

Third, although the Ona live in a cold place they have very little clothing — merely guanaco skins thrown around them. The Copper Eskimos have carefully sewed clothing. They have one suit for summer, a different suit for winter, and a best suit for dancing and traveling. They make fine boots and stockings, fur hats and gloves, to protect themselves.

Fourth, they have metal tools. They make tools and utensils of copper. These are sharper and better than the stone knives and axes and scrapers of the Ona and the Bushmen.

Fifth, they travel from place to place. The Ona and the Bushmen walk everywhere, carrying heavy packs on their backs. Some of the Eskimos have learned how to make sleds of wood and copper. They have tamed dogs to pull their belongings when they move from place to place. A few have even tamed reindeer and learned to ride on them. But none of these people have horses or wheeled carts and wagons to ride on. And, of course, they do not have automobiles and trains.



William Thompson

FIG. 53. These Papuan women have gathered wood for their fires

CHAPTER VII

The Fuzzy-Haired Papuans

New Guinea, One of the Biggest Islands in the World

"HERE IS another way of living," said Nancy as she turned the pages of a book and looked at the pictures. "Everything is different from the way the Eskimos live!"

"Yes, and from the way the Bushmen and the Ona live too," said Bobby.

"But I don't see why this book calls New Guinea one of the two largest islands in the world," said Tom. He went to a map and found the island just south of the equator, that line drawn halfway between the north pole and the south pole. "Look at Australia near it. That must be ten times as large!"

"But Australia is a continent," put in John.

"Why is Australia called a continent, and New Guinea an island?" asked Tom. "The dictionary says 'an island is a body of land surrounded by water.'"

Australia and New Guinea are both bodies of land surrounded by water. Australia happens to be much larger than New Guinea, that's all."

"Yes, Tom, that is true," said Miss Brown. "But what John has said is true too. In one way it is correct to say that New Guinea and Australia are both islands, for they are bodies of land surrounded by water. The only real difference is one of size. The scientists called geographers, who study such questions, have just decided that they will call the small bodies of land 'islands' and the very biggest ones 'continents.'"

"Then Europe and Asia, Africa, North America, South America, Australia, and Antarctica are the only continents. All the rest are islands," said Charles.

"Yes, you might look up the size of each of the continents and make a list of them. Then compare them with New Guinea. That means find out how much bigger they are. New Guinea is 1100 miles long and 400 miles wide. You will see why the geographers call New Guinea an island, and Australia a continent. And if you compare New Guinea with other islands, you will find that it is one of the largest islands on the earth."

Who First Found New Guinea?

For thousands of years the people of the islands in the Pacific Ocean have known the Papuans of New Guinea. For thousands of years they sailed in their canoes from island to island and exchanged their things for those of the Papuans.

But the European people have known about them for only a short time. Ferdinand Magellan's men nearly found New Guinea in the year 1521. That was more than 400 years ago. You remember that after Magellan passed Tierra del Fuego on his trip, he sailed across the Pacific Ocean and landed on one of the Philippine Islands. Here he was killed, but his men sailed on through the southern islands east of Borneo and just north of the equator. They almost touched New Guinea, but not quite. Instead they crossed the equator, turned west, and sailed on and on, finally going around Africa and home to Europe. They had sailed round the world, but they missed New Guinea.

It is believed that five years later, in the year 1526, another man, called Jorge de Meneses, sailed from Europe south, then around Africa across the

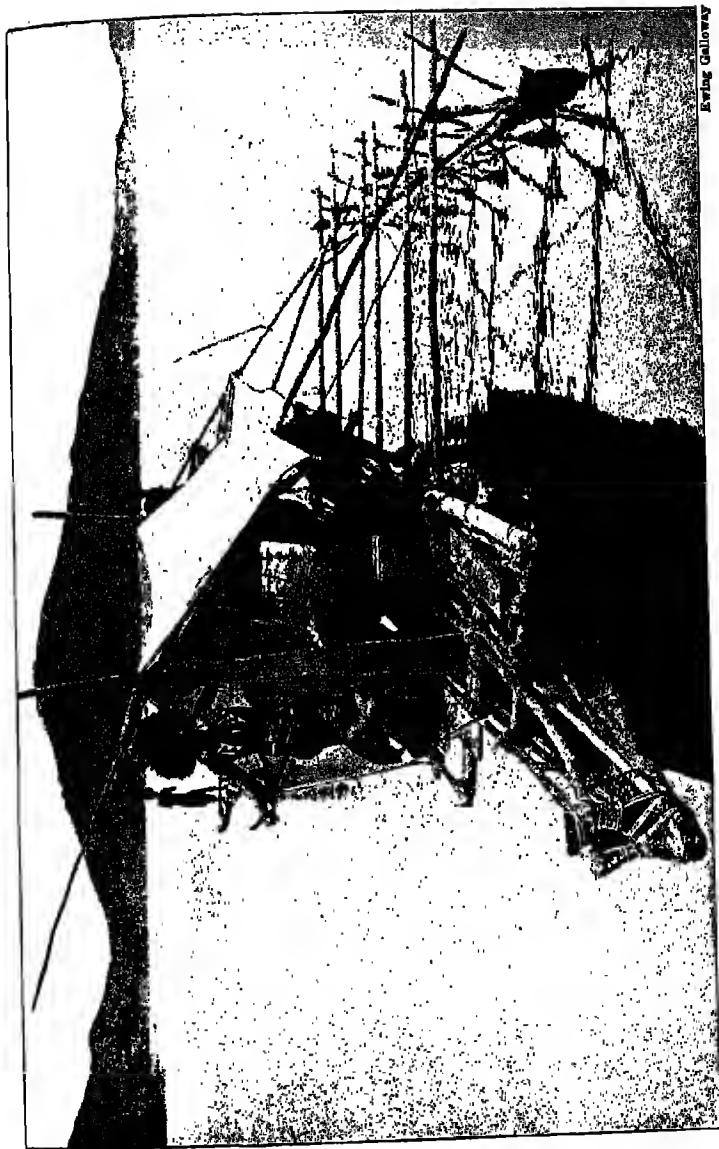
southern ocean eastward, and landed at New Guinea. Although he stayed there several months he did not know what a large island he had found. After that time many travelers from different countries went to New Guinea and studied the people and their land.

How New Guinea Got Its Name

There are two names for this island, New Guinea and Papua. Papua was the name which the people of other islands of the Pacific Ocean gave to it. In their language Papua meant woolly, or fuzzy. The hair of many of these interesting people is fuzzy, sticking up as you see in the picture (figure 54). The people are very proud of their hair. Some of them spend hours on it every day. The headdress shown in the picture takes months to get just right.

The people living on the islands near New Guinea told Meneses that they called the people of that island Papuans, so he named the island "Papua."

Eighteen years later, in 1546, a Spaniard named Ortiz de Retez landed on the island. He thought that he was the first to see it. On the west coast of Africa, in a place called Guinea, live Negroes who look very



Ewing Galloway

FIG. 54. These canoes are made without using a single nail or screw. Can you see the fuzzy hair of the people?

much like the Papuans. So Ortis de Retis named the new island "*New Guinea*." That is what it is called today. The southern part is still called Papua, however.

The Land of the Papuans

Once again let us go on a magic trip to this part of the globe. We shall take a ride in Captain Frank Hurley's airplane *Sea Gull* and fly over the island of New Guinea swiftly. In this way we can get a sort of bird's-eye view of it.

We start from the village of Elevala. Look at it in figures 2 and 55. Here are 100 thatched huts built on tall poles, around the edge of the little bay. Take a last look up the main street of the village. This is a shaky board walk also built high up on poles. Bushy-haired women like those in figure 2 stand on the narrow walk and stare at us. Notice their grass-like skirts. These have been made from the leaves of the sago-palm tree. Figure 65 shows how it is done. We shall hear more about the sago palm, for it does

¹Unless otherwise credited the illustrations in this chapter are from photographs from *Pearls and Savages*, by Captain Frank Hurley. Published by G. P. Putnam's Sons.



Captain Frank Hindey

FIG. 55. The airplane starts from the village of Elevala¹

nearly everything for the Papuans. It gives them food to eat; it gives them wood for their houses; it gives them material for their clothing.

Along both sides of the shaky board street are the village huts with roofs and sides of thatched grass. All of these, as well as the street, have been built on poles above the water.

At last the engine of our plane starts with a roar. Slowly the machine lifts us into the air. We wave good-bye to several hundred frizzy-haired, brown-skinned people. Here we go, 200 miles along the coast.

Such changes of weather as we start our trip! First it rains, and the water really seems hot. Then the sun comes out. Next, a heavy, sticky fog fills the air, and we cannot see the land below us.

Suddenly the fog lifts, and the air is clear. We drop down, nearly touching the tops of the forest. Giant palm trees, 150 feet tall, are just below us. Crowded in between them are smaller trees, bushes, and vines. The rich black soil is packed with growing things. Creeping vines wind themselves around every tree, bringing all together in one tangle of plants. Even when the sun breaks through the mist,



Captain Frank Hurley

FIG. 56. Rain and heat make the jungle of Papua a place where plants grow all the year round

the sunlight cannot reach the ground. This is the jungle, where things grow and grow all the year round.

We wonder how men can go through such a jungle. Those who live there have no great steel machines and tools. They use only rough stone axes and dull little knives. It is hard work to cut paths through the forest. They cannot go more than a mile a day.

How beautiful it is, this tangled nature below us! Look at those creeping vines reaching out from tree to tree. Everywhere flowers show their bright red and yellow colors through the vines.

Only the songs of birds and the calls of jungle animals break the quiet of the forest. No sound of men can be heard. Even that great river over there moves slowly along in silence.

This is truly the tropics, the land near the equator, the land of heat and rain and jungle.

The plane hums along. Now we have left the jungle. As far as we can see, there are swamps, just water and tall grass. We see no trees now, only water, water, everywhere. We have been told that the water in that great lake down below is 90° hot.

That is perhaps as hot as your bath when you stepped into it this morning or last evening.

If we were down below in that swamp we would be nearly eaten up by mosquitoes. Millions of them would buzz around us. Even nets around our heads and blankets around our bodies would not keep the insects from our skins. We remember that in the north of Canada the Arctic Eskimos have to fight the mosquitoes in summer. These Papuans of the swamps fight them the year round!

As we look at miles and miles of swamps we think of the Kalahari Bushmen, with their dry, cracked lips, hunting for a water hole! They needed more water so much, and here are these people in the New Guinea swamps having too much of it. That is true on the earth. Some people have too little water and others have too much.

But now look there, miles and miles away! Can that be snow on those mountains way off there? Or is it a "mirage"? No, it is real, for they do not have mirages in this wet climate. People see mirages only in the hot, dry deserts like the Kalahari or on the oceans.

We can see now that New Guinea has really many

large mountains. One range after another stretches before our eyes. And most of them are covered with forests and bushes. How high they are! Even the low ones near by are from 5000 to 9000 feet high. Those highest ones have snow on them all the year round.

"Snow at the equator?" you are asking. Yes, strange as it may seem, snow is on the tops of the mountains, and great, wide glaciers push their way down the great valleys between. The tops of those mountains 200 miles away are 12,000, 13,000, or even 16,000 feet above the sea from which we have just come. The highest one is Mount Carstens, which is known round the world.

How can there be snow on the mountains at the equator? Is it not always hot at the equator? Yes, on the low lands it is hot all the year round, but not on the high mountains. The reason is this:

You know that when the sun's rays strike the earth they make the air warm. The air is thick near the earth, and it holds the warmth of the sun very well. But as you climb high up from the low lands of the earth the air gets thinner. It does not hold the heat of the sun so well as the air near the earth.

So it is cold. The higher above the land you go, the colder the air becomes. When it becomes cold enough, the vapor in the air changes to snow instead of to rain, and falls on the mountains. So, even at the equator, snow falls on the tops of very high mountains.

Now the plane turns toward the coast again. There it is, far away. As we speed along we can see the rivers emptying their muddy waters into the sea every few miles. Bays push their way into the land. And close to the shore are the tall trees with the tangled vines and bushes underneath.

What an unusual island this is, with its jungles, its great lakes and swamps, its hot rain and thunderstorms, its icy glaciers and mountains covered with snow.

A Papuan Town

At last, below us, we see our stopping place — the village of Kaimari. It is another town built up on poles, as so many of these Papuan villages are. The land is a moving sea of mud, the delta of a large river. As in the village from which we started, the hundreds of huts are built along a walk made of poles.

As our plane drops down to the water before the village, we see three very large buildings. These are the clubhouses of the men. You can see the inside of one of these in figure 57. Later we shall visit them; that is, the men among us can; women and children are not permitted to go in.

We drop down near the shore. All around us are long canoes filled with brown-skinned people who are waving their arms and shouting strange cries. Will they welcome us or harm us, we wonder.

It is indeed a welcome! The Papuans have become used to seeing people from America and Europe. At the present time there are between 2000 and 3000 white men living on the island.

Here come the chiefs of the villages near by to receive us. Behind them follow the people bringing us a pig as a gift. We find out later that the pig is really a gift to our strange machine, the airplane, which they cannot understand. They think that the pig will help to keep peace with the airplane too.

Notice how the people are dressed. Some wear headdresses of feathers, necklaces of dogs' teeth and shells, and narrow bands around their waists. Others wear nothing but narrow bands. There is no need, of

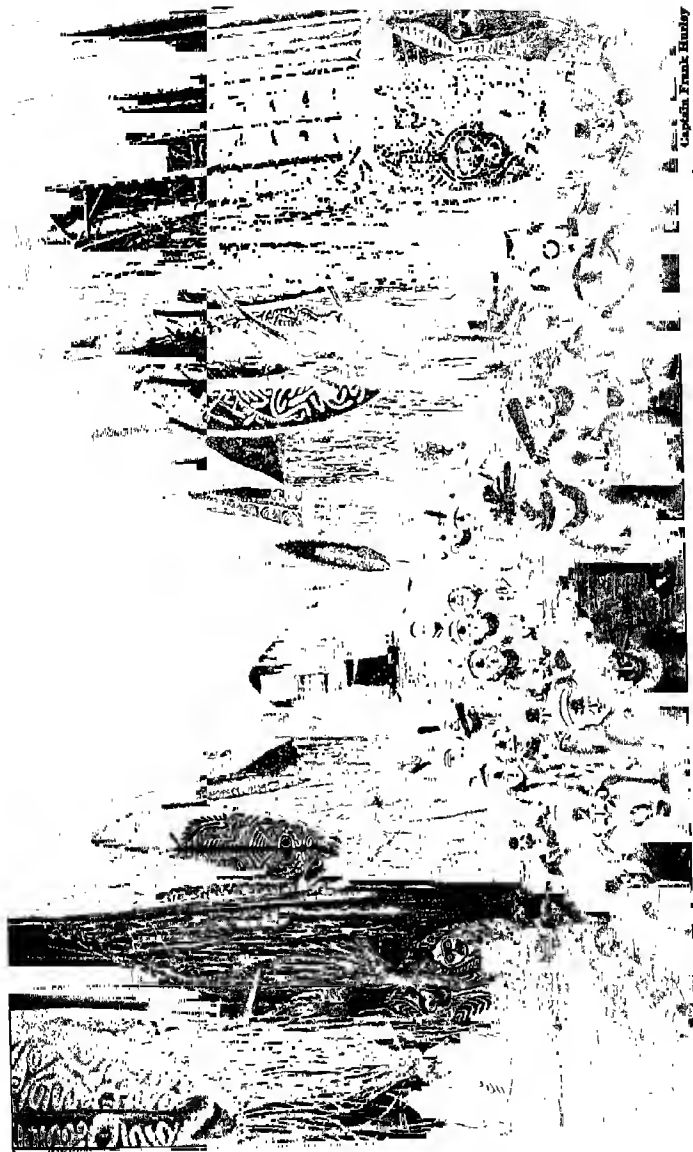


FIG. 57. The men's house is a place for dances and meetings. It is decorated with shields and flags

Lapasia Frank Hurley

course, to wear more than that in such a climate. The people are much healthier without clothing. It rains much of the time, and it is wet or humid all the rest of the time. Our own white-cotton suits and dresses are soon wet through.

Most of the people have the same fuzzy hair we have seen before. "Papuan" is certainly a good name for them. Around their arms are bracelets, and a few of them have strange sticks stuck through their noses. We have, indeed, found another interesting people here at the equator.

Let us take a walk through the village. That is easy, for it means only a short trip along the shaky board walk. Walk very carefully there. If you fall through, you will land in the mud below. Then you will be like most of the people of the island, except that you will have the black mud all over your white-cotton suit. Those children down below us, playing with a pig and a dog, seem to like the mud.

Some of the people plaster the mud over their bodies. Look at those women standing before the door of a hut with their heads down. Why have they covered themselves with mud? Why are those grasses tied to their bodies? The guide tells us:



Captain Frank Hensley

FIG. 53. The brown-skinned people are repairing their long canoes on the shores of the island

"They are widows. Their husbands have died. They mourn for them. They must dress and do like that for months now."

"But why does that man have mud on his body?" Someone answers, "He mourns for his dead dog!" How strange, we think. Then we remember that our people too have ways of mourning for the dead. Perhaps these Papuans are not so strange. They are just different from us.

The Dance

Early the next morning the Papuans have a great dance for us in the large clubhouse. First the old men send every woman and child out of the village for the day. They load them into canoes and send them up the river.

Then what excitement there is in the village! The men are all dressing up for the holiday. They put on their headdresses of feathers and decorate themselves with shells, beads, bracelets, and necklaces. It must have taken months to make the headdresses like the one shown in figure 60. Every feather is in exactly the right place.

Next their cheeks and lips are painted red and



Captain Frank Hurley

FIG. 59. For months the widows dress in this way to show that their husbands have died

their eyebrows blackened. Then the men file their teeth, which are black from chewing lime and the nut of the betel tree, down to sharp points. Grass skirts are hung from their waists, and wreaths of flowers are hung from their brown shoulders and arms.

We go over to the tall clubhouse and climb up the ladder. This is a log with narrow boards nailed on it. We open the broad flap of palm leaves used for a curtain and start back in surprise. Instead of seeing a dozen people, we look upon 200 men in two long lines, dancing in the most interesting ways. It is a wild sight, with flags hanging on the walls, spears standing in the corners, and skulls of dead people stuck in the walls and hanging from the ceiling.

Up and down the 200 men step. Round and round they turn, their arms shining in the sunlight that streams in through cracks in the walls. Back and forth they glide, with the rough pole floor swaying up and down until we wonder if the whole clubhouse will fall down. As they dance they sing a strange song.

At the end of the long hall sit not less than 30 drummers pounding out the music in regular beats. The drums are made of hollow logs over which lizard skins have been tied.



WILLIAM THOMPSON

FIG. 60. A dancer wearing a headdress made of the feathers of a bird of paradise

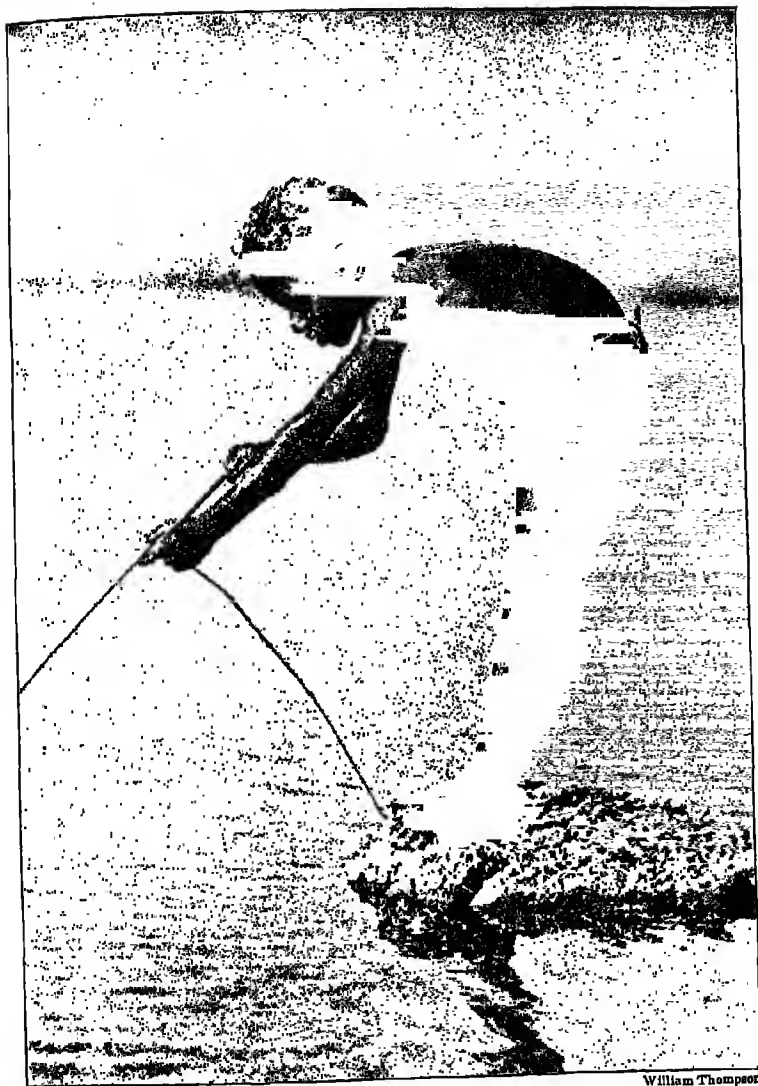
We look at the faces of the men. All are chewing betel nut as they sing. Not one stops. As the drumming becomes louder and louder their faces become wilder and wilder. Now and then a few leaders step out into the center and do something special, the others watching and clapping. They mimic their neighbors in the next village. They dance out the story of something that happened the day before. They imitate the white men who came to rule them.

All day long the dancing lasts and on into the evening. Even when we leave and go to bed in the hut which they have given us, we can still hear the tom-toms beating and the dancers singing.

Are These People Simple?

We have gone up and down the main street. We have seen the Papuans at work and at play. We think: "This is a simple life, indeed. But are these people as simple as the Bushmen and the Ona, or even as the Eskimos?" Let us see.

The Papuans live in one place. Each family has its own house. The families of Eskimos, Bushmen, and Ona do not; they are wanderers, moving from place to place to find their food.



William Thompson

FIG. 61. A boy spearing fish from a coral reef. Note the string attached to the spear

The Papuans are not wandering food-gatherers. It is true that they gather much of their food from the jungle and the water. They catch fish from the rivers and along the coast. Those who live on the coast get fish very easily. They also eat the fruits which they pick off the forest trees. They hunt for turtle eggs. The picture of figure 62 shows eight giant turtles that they have caught and, with them, many eggs. What a feast they'll have now!

From time to time some have the good luck to catch birds and other kinds of food that they like, such as little alligators, and prawns which are like crabs. Snakes, they think, are very nice.

But the real feast of the jungle comes when someone discovers an old dead sugar-palm tree in which are crawling thousands of "grubs." Grubs are soft white wormlike animals about as big as your little finger. The Papuan chops down the tree and drags it to the village. Then all the people turn out and have a great feast. Little children and old people alike swallow these grubs as fast as they can.

But the chief food is sago. This is made from the inside of the sago-palm tree. To make sago is a hard task, so everyone helps — children as well as grown-



Captain Frank Hurley

FIG. 62. These giant turtles have been caught, and with them have been found hundreds of eggs. What a feast there will be!

ups. Great palm trees have to be chopped down with rough stone axes. Next the soft inside, the pulp, is scraped out and mixed with water. The water is then poured off. This leaves a sticky paste, which is baked in a fire. After it is cooked, sago will keep for weeks.

Thus you see that in many ways the Papuans are food-gatherers. But they also raise some food. Those on the coast, as well as those who live inland,

raise pigs. Some of them free small pieces of land from trees and vines and raise taro, a kind of potato, as well as banana and coconut trees.

But to free the jungle land of the trees and vines and bushes is almost more than the men can do with their stone axes and knives. No sooner do they get the seeds planted than weeds grow up faster than the crops. It is so hot and wet that the men cannot work very hard or very long. It is much easier to take what nature gives them.

So these people too are slaves of nature.

The Papuans Are Great Traders

In another way these people of New Guinea are like the Eskimos. They make things and barter them for other things which they want. Money is not used. All the people do some trading. The people of the coast villages trade with those who live inland along the rivers, going back and forth with their long canoes filled with goods. The river people trade with the jungle people.

Many of them are sea-traders as well. Their canoes are larger and broader and have sails. They go out to sea, sailing from island to island.



FIG. 63. The sago-palm tree is chopped down with rough stone axes



FIG. 64. The inside of the trunk is scraped out and mixed with water

Captain Frank Hurst

Study a large map that shows the islands near New Guinea. There are hundreds of islands from Borneo and Java, on the west, to New Guinea and New Britain, on the east. Now the people of one island exchange the things their people make for things made at another island; then they go on to a second island, exchanging these things for things made at that island; then they go to still other islands and trade until they finally get home with a load of things which their own people need.

What kinds of things do they trade? Bananas and other fruits, spearheads and arrowheads, shells, and clay pots are some of them. And fine craftsmen the Papuans are too! The men make perfect arrowheads, using only sharp shells which they pick up along the beach. The women have skill in making pots out of clay which has been dug from the ground. These pots are used for cooking. They are loaded into canoes and bartered in other islands. Beads are also wanted very much for trade, as well as other ornaments to wear as necklaces and as bracelets around their arms and legs.

Since the white people have come into these islands, there are two things which the Papuans

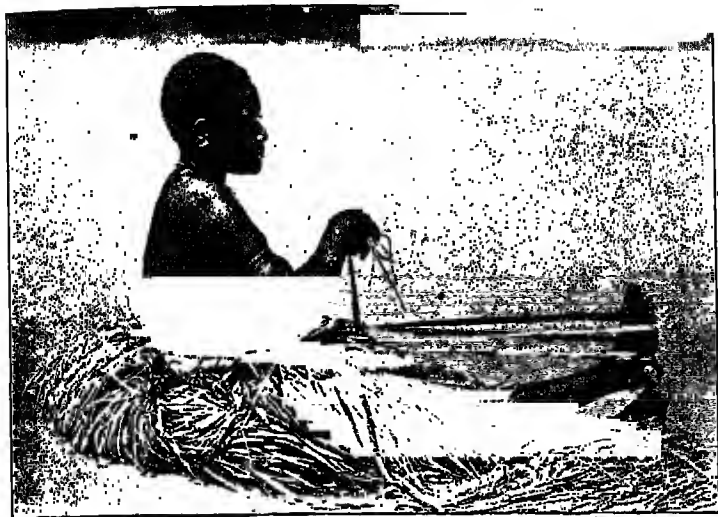


FIG. 65. Palm leaves are used to make a new skirt for this lady

want most of all. The first is tools of metal; the second is cloth. What will they not give for a tool made of steel! A Papuan will work for weeks to make a canoe out of a great tree in order to exchange it for a steel ax-head or even a steel knife. Saws and other tools are just as valuable.

But for the white men's cloth they will do any kind of work or exchange anything they own. Can you imagine how amusing a tall brown-skinned Papuan looks all dressed up in a ragged pair of

trousers of one suit, an old vest or coat of another, and an old cap or hat? The kind of cloth does not matter to him. Rough cotton is just as good as the finest silk, just as long as it is cloth.

And how much they want anything made of tin or of glass! The women will eagerly exchange a whole bunch of bananas for an old empty tin can. Until the white man came to New Guinea, water was boiled and carried in hollow bamboo sticks or in coconut shells. Today the floors of many Papuan huts are nearly hidden under empty tin cans, bottles, jam jars, and the like. The roofs of some of the houses are piled high with pots and pans.

There Are Pygmies in New Guinea Too

The people you have been reading about, who live along the coast, are about as tall and as large as our own people. But back in the mountain jungles live small bands of little people.

They are pygmies, and they are even shorter than the Bushmen of South Africa. Scientists think that thousands of years ago they lived on the coast of New Guinea. Then the larger men who now live there came in canoes and drove the little men back

into the mountain jungle. Today there are only a few thousand left living in the mountains in their simple way.

A Land Where the Climate Changes Little

As you have read, New Guinea is a hot country located just south of the equator. One visitor said that during all the years he was there the thermometer marked 70° early in the morning and 90° at noon. It never went much lower nor much higher. How different from the changing seasons of the Eskimos!

In the tropics there are no seasons as we know them in our country. There is no winter and no summer. Of course sometimes it rains more than at other times, and the winds change from one part of the year to another. But the temperature is about the same all the year round. So the climate is not very different in July from what it is in January.

In most parts of the island it rains nearly 100 inches in a year. That is nearly three times as much as in northern United States and 20 times as much as in hot deserts. There are places where it rains 200 inches a year. It just pours and pours, week

after week, month after month. In such places it is hard to live because there is too much water.

Should you like to live in a country where they have just one season? Or would you rather have it cold part of the time and warm part of the time? Geographers think that one of the fine things about the climate of our country and of Europe and parts of Asia and Africa is that it changes from warm to cold and from dry to wet. The changes keep the people well and active.

As we study we shall learn more about the important part climate plays in the ways that people live.

CHAPTER VIII

Some New Questions about Climate

WE HAVE read about four different peoples. They live far away from one another and in different parts of the earth. One is near the equator, one is near the north pole, another is toward the south pole, and still another is south of the equator. In these places people live in different ways. Those near the equator have one kind of climate. Their seasons are of one kind. Those far away from it, near the poles, live another way. They have a different kind of climate. Their seasons are not the same, and their ways of living are different too.

What makes these differences? Is it because people live in different places? Does location, or the place where people live on the earth, tell us what kind of climate they are having? Let us see, first, how we find, or locate, places on the earth. Then we can understand if their location has something to do with climate and ways of living.

One Way to Tell Where Places Are on the Earth

You already know one way of finding places on the globe. You know the four main directions — north, south, east, and west. You know that if you travel toward the north pole you are going north and that if you travel toward the south pole you are going south.

Knowing the directions helps a good deal to tell where places are on the earth, but it does not tell exactly where they are. To be able to tell more exactly, look at the globes on pages 26 and 27.

Do you see the equator? Notice how it goes around the entire earth. It is exactly halfway between the north and south poles, and it divides the earth into halves.

Since the earth is nearly round, it is called a sphere, and each half is called a hemisphere. The half between the equator and the north pole is called the Northern Hemisphere. That between the equator and the south pole is called the Southern Hemisphere. Can you tell in which hemisphere you live?

• The Eskimos live in the Northern Hemisphere; the Ona, in the Southern Hemisphere.

The Zones of the Earth

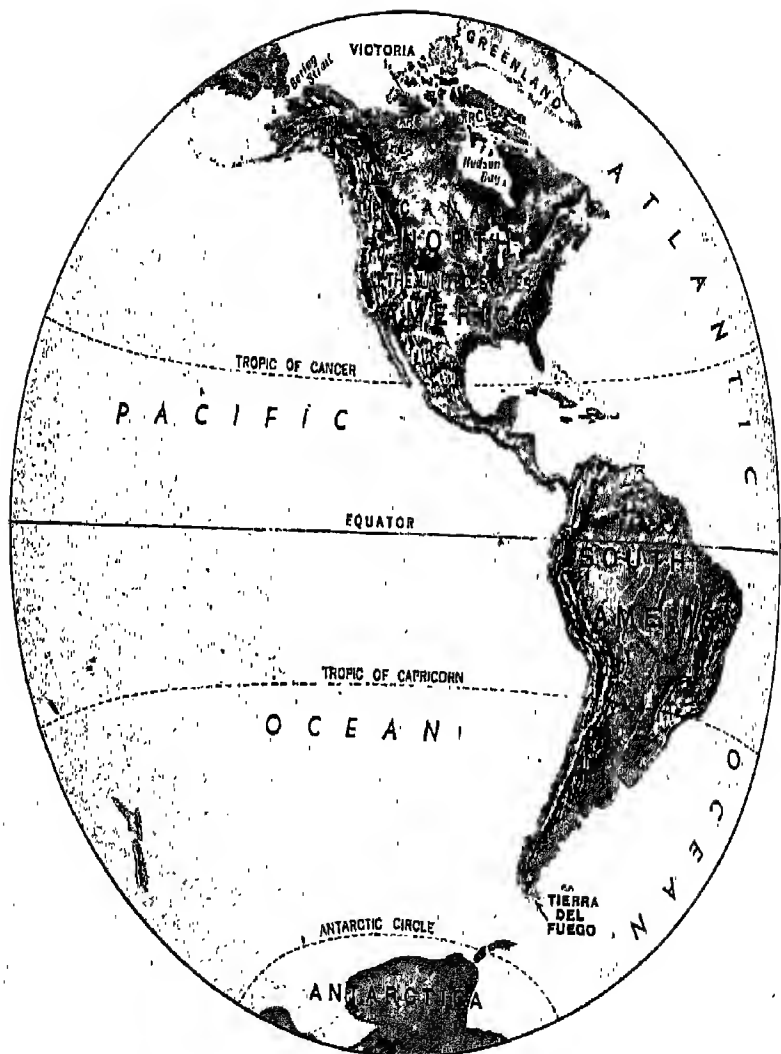
Another way of finding places on the globe is by the zones. The zones are certain parts of the earth. They are shown by five lines on the globe. See if you can find them as you read.

What are these five lines? First, there is the equator, which, as you know, is exactly halfway between the north and south poles. A short distance south of the equator is another line, which is called the Tropic of Capricorn. North of the equator is still another, which is called the Tropic of Cancer.

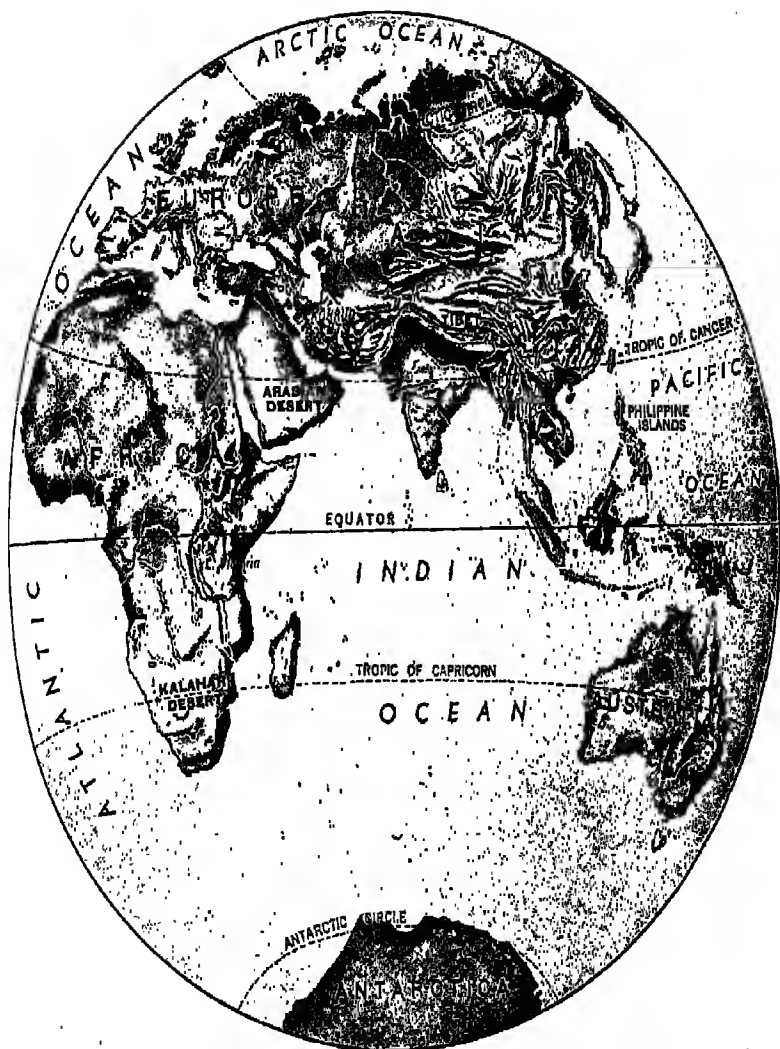
Now look still farther north on the globe and find the line near the north pole. This is the Arctic Circle. Then find the line near the south pole. This is the Antarctic Circle.

The globes on pages 26 and 27 show how these lines mark the zones. They are:

1. The two torrid zones. *Torrid* means "hot," so these zones are well named. The north torrid zone extends from the equator to the Tropic of Cancer. The south torrid zone extends from the equator to the Tropic of Capricorn. The Papuans of New Guinea and the Bushmen of the Kalahari live there.



Some of the places you have read about in this book



Some more places you have read about in this book

2. The two frigid zones. Frigid means "cold." The north frigid zone lies between the north pole and the Arctic Circle. The Copper Eskimos live there, just on the southern edge. The south frigid zone lies between the south pole and the Antarctic Circle. No people live there.

3. Between the frigid zones and the torrid zones lie the two temperate zones. Temperate means not too hot and not too cold. The north temperate zone extends from the Tropic of Cancer to the Arctic Circle. This is perhaps the most important zone on the earth. More than half of all the people of the world live in this zone. Extending from the Tropic of Capricorn to the Antarctic Circle is the south temperate zone. Here are also located some important countries and peoples, although not nearly so many as in the north temperate zone.

These are some of the ways of locating places on the earth. They help to tell us where places are. Later you will learn even more exact ways.

Now we shall see what the location of a place on the earth tells us about its climate.

**Does the Location of a Place on the Earth Tell Us
Something about Its Climate?**

The Location and Climate of New Guinea

Let us begin with New Guinea, the home of the Papuans. Remember, first, that it is located almost at the equator. What is its climate? Generally it is hot, from 70° to 90° above zero, month in and month out. There is really little change in the temperature during the year. The people wear little clothing and do not heat their houses.

Remember, second, that the rainfall is very heavy. In most places it is 100 inches a year and in some places 200 inches a year.

And remember, third, that the winds blow during most of the months of the year, bringing clouds and helping it to rain.

This, then, is the kind of climate that we find in the hot and rainy tropics as we call the lands near the equator. This is the climate of one place at the equator.

The Location and Climate of the Eskimos

Now think for a moment about the home of the Eskimos. Remember that it is located near the Arctic Circle. The Arctic Circle is far from the equator and

quite near the north pole. What is the climate of this land?

First, it is cold. In the long winter the temperature is low, even to 30° or 40° below zero. In the short summer, although the snow is gone and the plants grow, it is still cold enough to wear clothes made of animal skins.

Second, it snows and snows in the winter and rains a good deal in the other seasons.

Third, the winds blow and blow during much of the year and bring clouds and snow or rain.

This, then, is the kind of climate we find in the cold land of the Arctic near the north pole. If we studied the Antarctic, near the south pole, we should find almost exactly the same climate. It is very cold in the long dark winter and cool, even cold, in the short sunlit summer.

Now let us see if you can answer the first question on page 179? That was: Does the location of a place on the earth tell us something about its climate?

The answer is "Yes." We can now say that: (1) In most cases a place that is very near the equator has a hot climate most of the time. A place that is

fairly near the equator is usually hot or warm. (2) Places that are very near the poles have a very cold climate much of the time. Places that are fairly near the poles are cool or rather cold. (3) In most cases a place near the equator will have a wet climate. But we have already found one case where that is not true. That is the Kalahari Desert, which is fairly near the equator and is a dry desert.

Another thing besides location that tells us about the climate of places is mountains. We have already learned that in New Guinea there are very high mountains which are very cold and have snow on their tops all the year round. At the foot of the mountains the temperature is hot, even 100° and more above zero, and it rains and rains. On the tops it is icy cold, even below zero, and it snows and snows. Both places are at the equator.

So we must be very careful when we say that places near the equator are hot. Those that are hot are in the lowlands and not on the high mountains.

There are other things besides mountains and location that help to tell us the climate of a place. Later we shall learn more about these as we study how other peoples live.



FIG. 66. A peasant's hut in Uganda¹

CHAPTER IX

The Baganda of Uganda

Where is Uganda?

ON A high plateau, or flat land, in central Africa is Uganda, the country of millions of black people. Four thousand feet above the sea they live, and just at the equator. Here are more than 3,000,000 dark-skinned people living in many tribes.

Even to print their names would take pages and pages. Can you say some that sound like music — Bahima, Banyoro, Kavirondo, Batoro, Ancholi, Bakoki, Basoga, Babuma, Banabuddu, Bakonjo, Baziba, Lendu, Bari, Latuka? You need not remember these. It is fun just to say them.

These are all people of Uganda alone. Look at a map of Africa and see in what a small part of the whole continent they live. Find Lake Victoria and the Nile River. Notice that Uganda is just north of Lake Victoria. All around this country live millions

¹ After a photograph from H. Johnston, *The Uganda Protectorate*.

of other dark-skinned people. And in the midst of the tribes of Uganda dwell the people called the Baganda.

Who Are the Baganda?

Do you think, by looking at the pictures of the Baganda in this chapter, that they are wild black men, perhaps simple food-gatherers? Most of them are not entirely black in color, but of a dark chocolate brown. Some are even of a reddish yellow. The faces of many of them are shaped much like those of the white and yellow people of Europe and Asia.

Look at figure 67 and compare this girl of Uganda with the Bushmen, the Ona, and the Papuans. Next, compare her with the others that come later in this book. Do the Baganda look intelligent?

Some scientists think that thousands of years ago some of the Baganda lived in Europe around the Mediterranean Sea and were related to the people of Europe of today. Perhaps these kings and chiefs of Uganda are really related to white people who lived long, long ago.

How the Baganda Were Found by Europeans

For hundreds, perhaps thousands, of years nobody of the outside world knew about the Baganda.



Ewing Galloway

FIG. 67. Here is a girl of Uganda. Is she like an Ona or a Papuan
or a Bushman?

There they lived, high up on their hidden plateau. One day when an Englishman was looking for something else, he found them.

The story of how they were found begins with the Nile River. The Nile is one of the great rivers of the earth. Find it on your map so that you will see how this story happened. Notice that it flows north from the center of Africa to the Mediterranean Sea.

Near the sea is Egypt, one of the very oldest countries in the world. The Nile flows through Egypt and waters the fields of the farmers who live on its banks.

For thousands of years the farmers of Egypt waited each winter for the rush of water to come down the Nile in the springtime. Over the banks the water would rise and flood their fields. The farmers knew that when the water flowed away and went off to the sea they could plant their seeds in the rich mud it had left behind. They knew too that the seeds would soon grow into plants, and the people would have grain to eat.

You can very well understand that the Egyptians worshiped the Nile as a god just as they did the sun, which made their grain grow. They thought about

it much and wondered where this water came from in the spring. Where does this great Nile River begin? In what country does it rise? Some of the brave people of Egypt even traveled up the river to find its beginning, or source.

Then people from far away asked the same questions. From Arabia travelers came. Even as far away as India the Hindus had heard of the Nile and came to find its source. But that was several thousand years ago.

How many of these people reached the place, we do not know. We think, of course, that many must have succeeded in going to the very source of the river; but until about 80 years ago they left no books behind them to tell about it, so we cannot be sure.

What John Speke Found

Then, in 1858, a young English soldier and traveler named John Speke came back to England from a long, long trip in Africa. He told his friends that he had found the place where the Nile River begins.

Where do you suppose it was? It was in the country called Uganda, on the shores of a huge lake

near the center of Africa. That was Lake Victoria, named after Queen Victoria of England.

Other travelers who had been in central Africa said Speke could not be right. Speke replied:

"But I know. I was there. I saw the people of Uganda. I stood on the shores of that great lake. I went along the river which flows out of it. That river, the 'Nile Victoria,' is the beginning of the great Nile, that flows more than 3000 miles to the north through Egypt into the Mediterranean Sea. The lake is at the very middle of the earth. The equator passes through it. The land is high there, too, nearly 4000 feet above the sea. On the shores of the lake is the kingdom of the dark people of Uganda."

Most people would not believe the thirty-one-year-old Englishman. So he planned another trip to central Africa to prove that he was right. Some people in England gave him money to pay his way, to hire people to help him, and to buy supplies.

Such trips then cost a very great deal of money and were very dangerous. There were no steamships to take people quickly round Africa. There were no smooth roads and no railroads, no automobiles or



FIG. 68. John Speke found the beginning of the Nile at Lake Victoria

airplanes to take them easily up over the African plains and hills. The people knew little of how to guard against disease. There were almost no white people there. Traveling in Africa 70 years ago was no easy task.

In April, 1860, Speke started again from England with a friend, Captain J. A. Grant. How do you suppose he went? By boat up the Nile? That would be the short way but not the easy way. In those days it was almost impossible to go up the Nile more than 3000 miles, to Lake Victoria. The current of the river was swift and strong, and there were no steam engines to drive the ships against it. There were rocky waterfalls round which heavy boats had to be pulled.

So Speke chose the longer but easier way of traveling. In a sailing ship he went from England south on the Atlantic Ocean, and then north up the east coast of Africa. The ship stopped at a place called Zanzibar. On this trip he sailed 8000 miles. It took four months to go all the way.

The map will help you to tell why Speke went to Zanzibar. Find Zanzibar and Lake Victoria. Now find the Nile delta, the place where the Nile pours its

water into the Mediterranean Sea. Can you see how much shorter it is on land from Zanzibar to Lake Victoria than it is from the Mediterranean Sea to the Lake? That tells you why Speke went 8000 miles by ocean around to Zanzibar.

For weeks Speke stayed at Zanzibar. Here he hired men and mules and bought food and other supplies. Most important to carry with him were the many donkey loads of cheap cotton cloth, handkerchiefs, beads, and other things which the people might like. More valuable things, such as guns and powder, were also needed. These had to be given to the chiefs through whose lands he would have to travel.

Then in October, 1860, the party started toward Lake Victoria. What a great caravan! There were 200 natives from different parts of Africa, and many mules and donkeys. For five months they marched across the hot plains near the coast, then up the narrow paths and rough roads toward the great lake and the kingdom of Uganda.

'Every kind of trouble arose. Many of the helpers who carried the guns and boxes of powder, the food and other supplies, ran away. The chiefs of some of

the tribes forced Speke to give them valuable supplies before he could pass through their lands. Lions, leopards, elephants, and wild buffaloes attacked the travelers.

Finally the food supplies were gone, and often they could find no animals to shoot. Many of them fell sick with African fevers. They had to fight bands of the dark-skinned tribes. But they pushed on day after day, week after week.

At last, on the shores of the great Lake Victoria, Speke found a kingdom ruled by a famous Bantu, or dark-skinned, king — Mutesa.

"A real king?" you are asking.

Yes, a real king — king of Uganda, king over several million people. For 400 years these people had had kings, but Mutesa was the most powerful and the most cruel of all their kings. You can see his picture in figure 69.

A Trip to Uganda Today

Five long months it had taken Speke to go the 800 miles from the coast. One hundred and fifty days to travel what today can be done on a train in two days and in an airplane in less than a day!

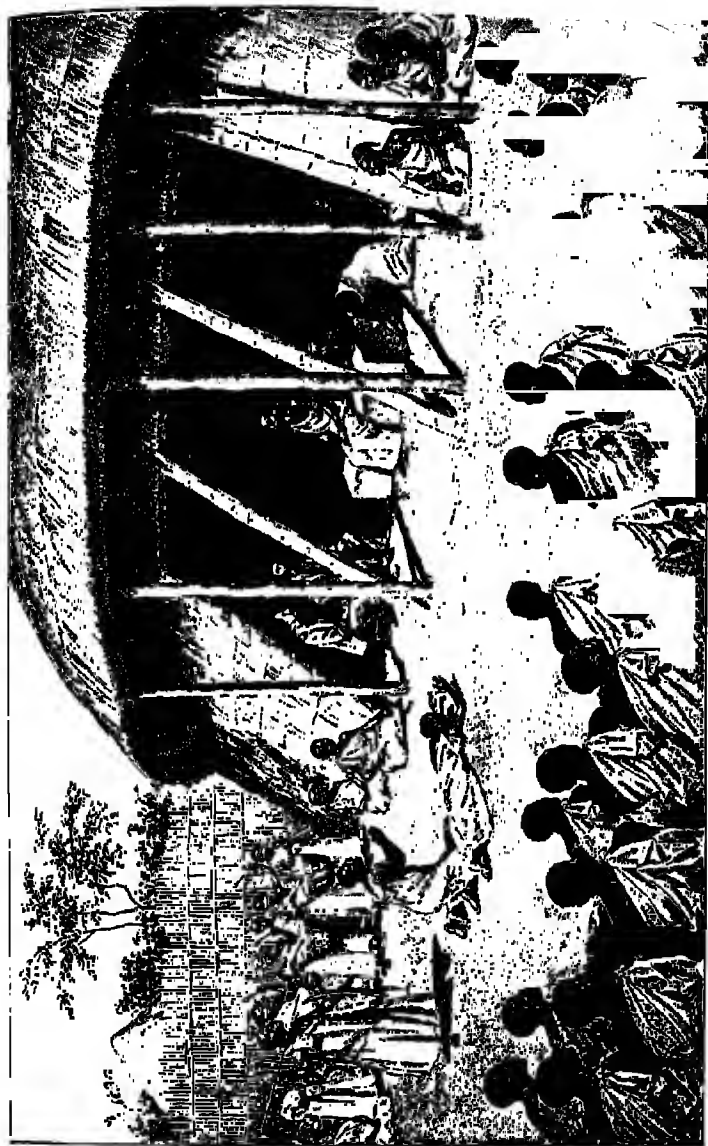


FIG. 69. John Speke and his friend, Captain Grant, at the home of Mutesa, the king of Uganda

How different is the trip you would take to go to Lake Victoria and Uganda today! If you were an American you would get on a big ocean steamship at New York City, and in three weeks you would have sailed across the Atlantic Ocean and reached Cape Town, almost at the very tip of Africa. If you were an Englishman you would sail south along the west coast of Africa, and in seventeen days you would arrive at Cape Town.

Then a small steamer would take you along the east coast of Africa to the new city of Mombasa (see figure 70), just beyond the island of Zanzibar.

At Mombasa you take a train. It is built like European trains. When night comes your beds are made up, and you sleep comfortably and safely while the train takes you through the desert-like plains of Ugogo.

All the next day, as your train chugs its way up the hills, you look out on Africa. How different it is from Speke's time, only 70 years ago! No walking or riding slow mules day after day, mile after mile, through the forest paths.

No longer is your baggage carried in 60-pound loads on the heads of 200 naked black men. Your



Flying Galloway

FIG. 70. The docks at Mombasa, on the east coast of Africa. Here one leaves for the Baganda country

few bags are safe in the baggage car. You did not bring much with you, for you can buy anything you need in Mombasa. Even in other towns of Uganda today you will be able to buy many things.

The train stops in the morning, at noon, and again at night. You get out and buy your meals. After two days and two nights you arrive in Uganda, and soon you are in Kampala. Here is where the king and his chiefs now live and rule the country.

In going this way you have not seen the great Lake Victoria. The train has taken you away from it and around the lake to the capital. If you had wished, you could have saved half a day and gone to the east side of Lake Victoria. There you would have taken the small lake steamer and crossed the lake.

No doubt you would be surprised at the size of Lake Victoria. It is one of the largest lakes in the world, almost as large as our own Lake Superior. A whole day and night you sail across it. Sometimes storms come up, the waves roll high, and you think you are on the ocean itself. But you reach the opposite shore safe, and at last you are in the country of the Baganda.

The Baganda Are Governed by a King and Chiefs

In the Baganda country all the people belong to clans. To understand what a clan is, think of your school. Suppose that every boy and girl belonged to a club and that each club has the name of some animal. There are the Lion Club, the Monkey Club, and other clubs.

Each club has a leader, called the chief. Some of these are chosen by the principal of the school; some are chosen by the children in the club.

The "chiefs" have meetings with the principal and the teachers. All of them make rules for the school. That is called the "government" of the school. The rules, or laws, must be obeyed by everybody in the school—by the principal, by the teachers, and by the children. Some schools in our country are run that way now. In some schools the children help to run the government.

Now think of the people of Uganda. Everyone belongs to a clan. Each clan is named for an animal. There are the Lion Clan, the Leopard Clan, the Monkey Clan, the Elephant Clan, the Buffalo Clan, and many, many others.

Each clan has a chief. He is chosen by the king and by the people of the clan. He lives in the largest house and is the real leader. He has many wives and many children. Each chief has two houses — one on the land where the clan lives, and another at the king's settlement or village. All the chiefs meet with the king to make the laws that decide how the people are to live. That is called the government of Uganda.

Do the Bushmen, the Ona, and the Eskimos have that kind of government? Do they have a kingdom? No. Each family lives by itself and makes its own rules. The father and the other older people decide what to do. Sometimes a small group of families live near together, but there is no chief, no headman, no king.

The Papuans, however, do live in villages and towns. They do have leaders who decide things in the village. But each village does as it wishes. There is no king, or no single government, over all the villages, as there is in Uganda.

One thing is certain. In no sense are the Baganda merely wandering food-gatherers. They are a settled people. That means they live today in villages and



Eying Galloway

FIG. 71. Men of Uganda with their drums. Their shining bodies are decorated and painted

towns, and they also lived that way when Speke came there. The king's settlement has not less than 3000 people in it, with hundreds of houses. A chief may have 1000 people living in his village, around which is a tall reed fence.

The Baganda build houses of wooden poles with thatched roofs and sides. They are shaped like beehives (see figure 72). Although their houses have only one room and their floors are of dirt, they are much cleaner houses and stronger and more lasting than those of the Papuans. The manners of the Baganda are much better too.

Let us walk out from the king's capital of Kampala, along one of the broad roads that go in every direction from the town. Let us spend a day with Maŭla, one of the farmers, or peasants, of Uganda.

A Day in Uganda

We were awakened very early, before the sun was up, by Maŭla, his three wives, and several children. Already they were up, warming themselves before the little fire which Meri, the third wife, had built on the earth fireplace.

¹After a photograph from H. Johnston, *The Uganda Protectorate*.



FIG. 72. These beehive huts are built of poles and covered with thatch. The men are making bark cloth¹

We had slept on mats and rugs on an earth platform. Rather a hard bed it was, but we had slept well, after all. Maïla had told us that in the houses of the rich, people had real beds with rope springs. But the farmers slept the way he did.

The night had been quite cool, and we had slept under blankets. We were surprised at that. Sleep under blankets in the land of the equator? Yes, because we must not forget that Uganda is on high land, 4000 feet above the sea. Light breezes blow over it much of the time. Last night the thermometer we brought with us went down to about 50°. That reminded us that only the lowlands at the equator are hot.

So we dressed quickly and stood near the fire, watching Meri get the breakfast. Because Meri is the third wife she is the servant of the family. She does most of the hard work while the other wives dress themselves well, visit with the neighbors, and receive Maïla's guests. In the middle of the floor Meri spread a layer of plantain leaves (plantains are a kind of banana). This was the dining-table. In the center of that she placed a basket of steaming hot plantain mush which she had been cooking in a pot

over the fire in the special cookhouse. Beside it she placed some wooden bowls with beans and gravy in them. Then she laid some flat sponges on the "table" and called, "Come and eat."

The family stood quietly and said certain words together. Then Maŭla made some movements with his hands and walked around his first wife. He did that so that the evil gods would not hurt the family that day. Then each one poured clean water over his hands and dried them on a sponge. We thought to ourselves: "The Baganda are much cleaner than the Papuans and other people we have met. Are they less simple than the other peoples? We are not sure."

Then we sat down on the ground, crossing our legs. Meri placed a little lump of hot mush before each of us. We took some in our fingers, rolled it into a little ball, dipped it into the gravy bowl, and put it into our mouths. All the people tried not to let any of the gravy drip on the table of leaves. Again we thought: "The Baganda are a clean people. They *do* seem to be much less simple!"

Maŭla surprised us by leaning over and putting his ball of plantain mush into the mouth of one of

the guests. "Very friendly to our guests," the first wife explained. After the mush and gravy were all eaten, some coffee berries were served with plantain beer as a kind of dessert.

Then we all stood up, washed our hands with cold water, and dried them on the sponges.

Other Foods of the Baganda

Plantain mush is the food which all Baganda eat. Not much meat is eaten, although some animals are caught and served from time to time. On some days beans and other vegetables are also eaten.

On the shores of the lake the people eat fish. Day after day fishermen go out to spear fish along the shore. Sometimes they put out large nets made from the stems of the papyrus plant. In these they catch hundreds of fish.

These people who live on the shore of the lake also make all kinds of boats. They make rafts of small logs. They hollow out trees and make narrow canoes that will hold from 4 to 10 men. They also make giant canoes. These will hold as many as 50 men!

A Pleasant Walk in the Fields

After the morning meal at Maŭla's we went out to the "gardens," where the women were hoeing the fields and taking care of the banana trees and vegetable vines. Women do all the gardening except clearing the land of grass and bushes. The men do that. We walked along the broad road, watching the women as they bent over their short-handled hoes — pulling, pulling, pulling at the rich black dirt. A foot deep they dug into the earth, making the dirt quite fine before they planted the seeds.

Other wives were weeding the bean and sweet-potato vines on their patches of ground. Each wife has her own garden. Over there are special plantings of corn, yams, tomatoes, and spinach. As we walked along, other women were in the fields of sugar cane and millet, a kind of wheat. The garden looked like one in America. We were told that the people of Arabia and Europe taught the Baganda how to raise these vegetables. Not many people eat all these things. Most of the poor peasants eat plantain mush for breakfast, plantain mush for lunch, plantain mush for dinner — if they have that many meals.

Maūla told us that everything grows very fast in Uganda. Remember that we are at the equator. The sun shines all through the year. It is always warm in the daytime; but because Uganda is high, 4000 feet above the sea, it is almost never too hot. There is no season of winter. There is no ice and snow. Showers come the year round. The climate is just right for growing things.

The Baganda farmers get two crops each year; that is, every six months a new crop grows. Because their lives depend on their crops, they think of their "year" as only six months long, instead of twelve like ours.

How the Baganda Dress

We walk along. Soon we come to some men who are cutting bark from fig trees. The bark comes off in large strips. The strips are taken to the huts, where they are pounded into a very thin reddish-brown cloth. This bark cloth is made into the garments which most of the peasants are wearing.

All but the children are dressed. The men wear the bark-cloth "toga." This is a sort of gown which hangs from one shoulder and leaves one arm and shoulder bare. The women are not clothed as much

as the men. They wind a piece of bark cloth round their bodies, leaving the upper part bare, as you can see in figure 73.

The richer people that we pass on the road have on white gowns. What are they made of? To our surprise we are told that it is American cloth! Some of it is from England, brought by steamers and railroad trains. Most of the people we see wear no shoes or stockings, although a few do have on sandals. Now and then we pass some children playing. They wear no clothing at all.

There goes a bundle carrier. He has a long pole on his shoulder with a huge basket hanging on each end. And there is a tall black woman with a huge bundle on her head. What skill she has in balancing it! Nowhere do we see horses or mules. Nowhere do we see wagons or automobile trucks. People are the "beasts of burden." In some ways these Baganda seem to be as simple as the Eskimos or the Papuans.

To the Market: Trade in Uganda

Down the hill we walk and along the road. It is nearing noon and is warmer now, perhaps 80°, but not uncomfortable. A light breeze is blowing all the time.

At the foot of the road there is a crowd of people. It is a market. There, on bark-cloth mats, the storekeepers have laid out what they have to sell. How many different things there are!

Some have brought the clay pots and wooden bowls they have made in their huts. The ironworkers have hammered out hoes, chains, bells, knife blades, long spearheads, and ax-heads. "Ironworkers"? Yes, these people have learned how to make many things of metal. Are they as simple as those others who have only stone tools?

Over on another side sits a man selling rugs and mats made out of reeds and palms. Here are piles of bark cloth and "American" calico, too. Sandals and straps made of scraped and painted animal skins are on sale.

The Baganda Learned to Use Money

We watch the people buying and selling things. Some of them simply barter. Many, many years ago all buying and selling was done that way. A peasant would come to the market with some goats. He might want a cow. He would leave five goats and get a cow for them.

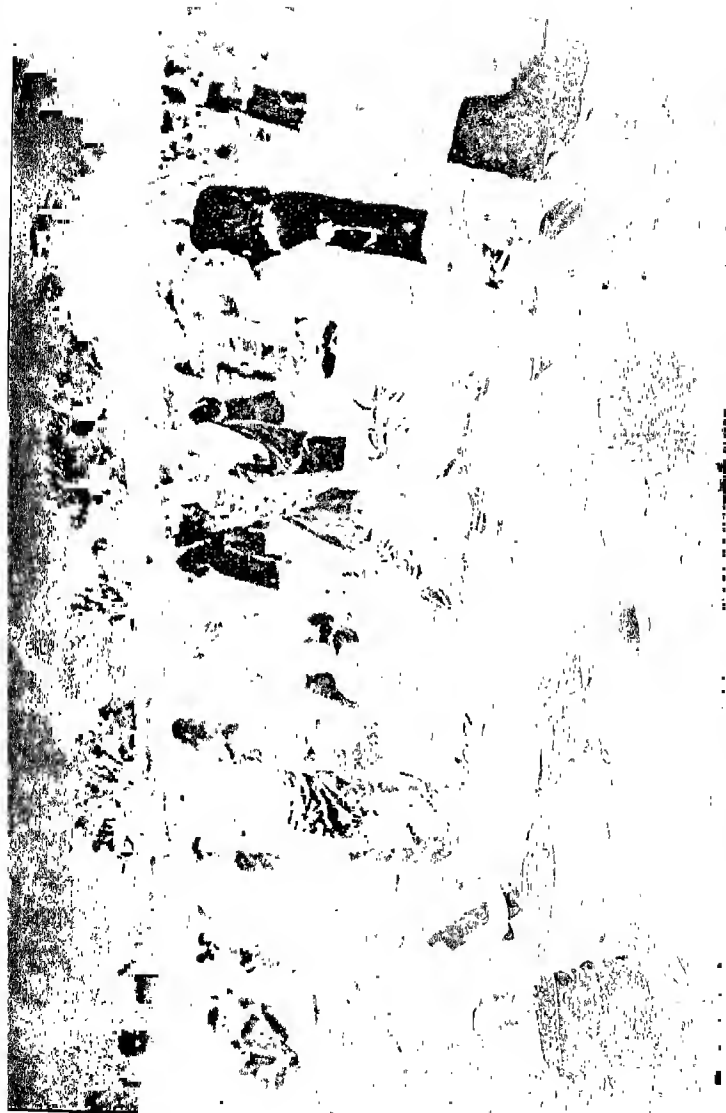


FIG. 73. A market in Uganda where barter is the way of trading

A "freeman" who owned some slaves needed some more cows for his large family. He would sell one man slave for one cow. For each woman slave he would get four or five cows.

This was barter as it was done in the markets of hundreds of years ago.

But sometimes it was not easy to get what one wanted by barter. Suppose someone had an extra cow or a calf and wanted one hoe and some bark cloth. A cow was worth much more than the hoe and the bark cloth. How could he exchange?

Like many other less simple people the Baganda began to use money. What did they use for money? It had to be something valuable which people could not get too easily. For a long time they used round pieces of ivory from the tusk of the elephant. Then they used a kind of blue bead. Finally they used cowrie shells. These shells were easier to get, so they were not so valuable. A cow was worth 2500 cowrie shells.

The picture of figure 74 shows these three kinds of Baganda money. Today the money of the people from Europe and Asia is also used in buying and selling. But the people still do some bartering.

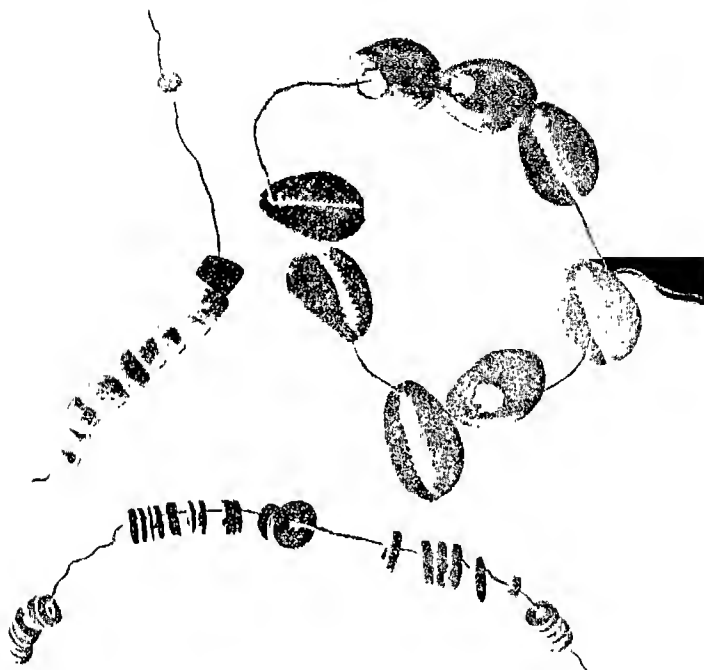


FIG. 74. Three kinds of money which the Baganda use in trading¹

We leave the market and go back to the house for the noon meal. It is much like the breakfast except that Meri has cooked more vegetables. After the

¹ John Roscoe, *The Baganda*. By permission of Macmillan & Company, Limited.

meal is over, everybody but Meri curls up on the mats and sleeps. "It is too hot to work," says Maŭla. Only the slaves and the poorest people go to the gardens or the shops in the early afternoon.

An Afternoon Trip

Late in the afternoon Maŭla takes us out to the hills outside the town. There we find some shepherds watching their flocks of sheep and goats. There are very few cattle and not many sheep. But how many herds of goats there are! Maŭla tells us that almost every farmer has some hens too, but these are kept only for feasts or to pay to the chiefs and to the king when they say they must have them.

Finally we turn back to the town. Down the hill we hurry, for the sun is getting low. In a few minutes it will set, and then everything will be dark. We must not forget that we are at the equator, and the moment the sun goes down darkness comes quickly. Can you tell why? In our own country it grows dark slowly after the sun sets. But at the equator darkness comes quickly.

We arrive at Maŭla's house just in time for the evening meal. Afterwards some neighbors come in

and sit and talk for a while. But by eight o'clock on our American watches they have gone, and everybody is in bed.

The Dance

One evening Maŭla, seeing us nod with sleep, says that he hopes we will stay up long enough for the dance and the band concert. It will be full moon tonight, so it will be worth seeing.

Dr-rumb — drumb — drumb — drumb! The dance is on! Dr-umb — drumb! Round and round and round!

Here are the *madinda* players. We stop to look at their instruments, the *madindas*, or Uganda xylophones (see figure 75).

Some of the younger men have made masks of banana leaves. They have cut holes for the mouths and eyes. They dance round and round the young women. They try to get their attention.

But wait! Here is the band! There are ten drums, two harps, and several fifes. The band plays and plays. Some of the people dance to their music.

We are getting more and more tired. People keep dancing and dancing around us. The harps and the drums are making a loud noise. Can't we go to bed?

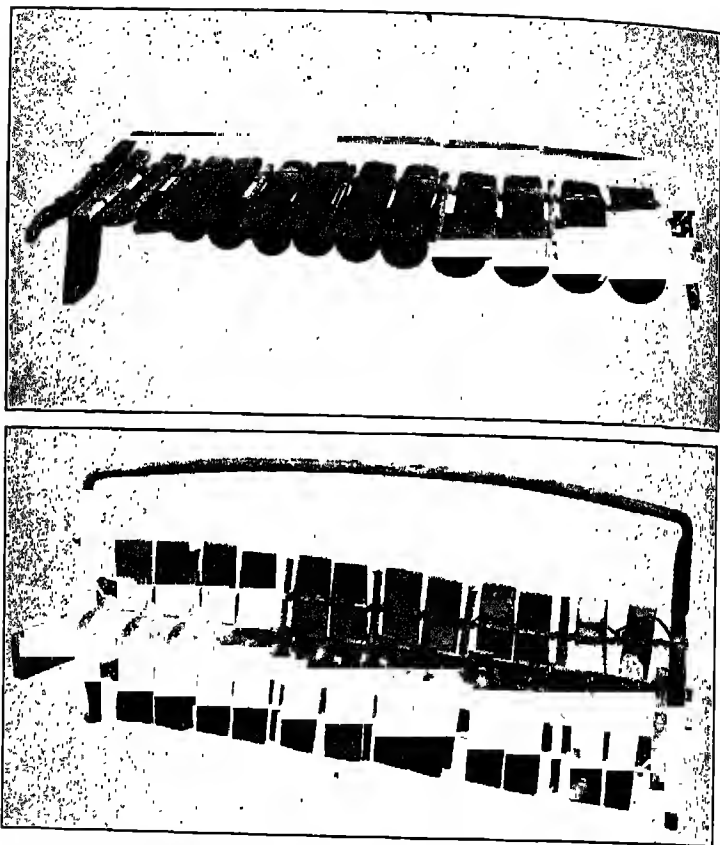


FIG. 75. This is like the madinda. The gourds under the strips of wood help to make the sound

Maūla says "yes." He leads us away from the noisy group. He takes us to his hut, spreads out the mats, and puts us to bed.

The Baganda Are Only a Part of the Many Negro Tribes of Africa

Look at the map of Africa again and see what a small part of the continent the country of the Baganda is.

Up and down the coast of Africa there are black people everywhere. Do not try to remember the names of all the tribes, but see if you can find them on the map. On the west there are the black people of Senegal, of French Guiana, of Sierra Leone. There are the tribes of Liberia, of the Gold Coast, of the Ivory Coast.

To the north of these are the scattered tribes and clans of the French Sudan. South of them are the black people of Dahomey. To the east, but still on the Gulf of Guinea, are the tribes and tribes in Nigeria, the Cameroons, and the equator part of Africa.

Still farther south is the great Congo River. If we went up that river we should pass through the lands of hundreds of tribes of the Belgian Congo. Each would have its interesting-sounding name and its own ways of living. Some live in the forest,

others on the grasslands, and still others along the jungle river banks or in the mountains.

Some, like the little pygmies of the African forests, are mere food-gatherers. They live off the fruits of trees, the berries of bushes, and such animals as they can kill. Others raise food from little patches of land which they have cleared. Still others are herdsmen with small flocks of animals. But most of them are simple peoples. They are more like the Papuans—not so settled and advanced in their ways of living as the Baganda.

Crossing quickly over Uganda we note to the north a huge country where millions and millions of other dark-skinned people live, and the Nile River flows down through it to Egypt. Farther east are the kingdoms of Abyssinia and Somaliland along the coast of the Gulf of Aden. Here are more tribes of black people.

So far we have mentioned only about half the tribes—only those north of the equator. To the south of these are just as many more. See if you can find them. You have read about the Bushmen of the Kalahari. Near them are many others—Hottentots, Bakalahari, Zulus, and others. And at the southern

part of the continent there are other dark-skinned people who live where most of the white people from England and Holland have gone to live — in Rhodesia, the Transvaal, the Orange Free State, and the Cape of Good Hope.

How many dark-skinned people are there in all Africa? Nobody knows. Many travelers and scientists have guessed, but as yet no one really knows the number. Some people say there are about 140,000,000 altogether in Africa. How many different tribes are there? Again, no one knows. Surely there are hundreds, perhaps thousands, of different ones. Africa is really the continent of the dark-skinned people. Not more than 3,000,000 white people live in Africa.

CHAPTER X

New Ideas about Ways of Living

IN EACH chapter of this book we have learned something new about the earth on which we live. Each chapter tells of a different people who live in a different climate. Living in different parts of the earth and in different climates, these people have different ways of living.

Something New about Climate

From these stories about the Baganda we have learned something new about climate and location on the earth.

The country of Uganda extends from north to south right across the equator.

The Papuans of the island of New Guinea also live almost at the equator. So the Papuans and the Baganda live in almost exactly the same latitude. Yet their climates are very different.

In New Guinea it is very, very hot, the tempera-

ture going from 70° to more than 100°; but in Uganda it is only comfortably warm in the daytime and fairly cool at night, the temperature going only from 50° to 80°.

In New Guinea it rains and rains, the yearly rainfall being more than 100 inches. In Uganda it rains too, but not nearly so much as in New Guinea. The yearly rainfall is only about 60 inches.

In New Guinea the winds are hot and wet and blow up great storms; in Uganda the winds are gentler and much cooler.

Why are there such differences in climate between two places that are located at the equator? There is one important reason — the height of the land. Most of Uganda is high land, being 4000 feet above the sea. Most of the land where people live in New Guinea is low land, rising only a few hundred feet above the sea.

You have already learned that the height, or altitude, of the land above the sea makes a great difference in the temperature, in the winds, and in the rainfall. Remember that it is cold and snowy on the tops of high mountains in New Guinea.

So we cannot say that the location of a place on the earth always tells what the climate will be. The

altitude, or height, of a place above the sea level also has much to do with it. Very high places will be cold, even if they are near the equator. We must always be careful, when we are studying the climate of a new place, to ask for its altitude above the sea, as well as its location on the earth.

New Ways of Living

Food-Raisers

The other peoples we have studied in this book were chiefly food-gatherers. They depended on whatever animals they could kill or the plants they could gather. They were "slaves of nature."

But the Baganda are not merely food-gatherers; they are farmers, as well as hunters and fishermen. They grow crops in the ground. They have grains and vegetables and fruit — corn and millet, beans and tomatoes, spinach and yams, and many kinds of bananas. They also raise animals. They have cows and hens. How many kinds of food they have!

So the Baganda have become masters of nature in some ways because they do not just gather what food nature gives them. Because of this, do you think they are less simple than the Bushmen, the Ona, the Eskimos, or the Papuans?

Better Houses, Tools, Utensils, and Clothing

Are not the Baganda more advanced than these other people in other ways also? That is, do they not live better? They live in settled homes, and their houses are built stronger and protect them better from the weather. They make cloth from bark and weave mats and rugs for their houses.

The craftsmen of the Baganda are different in another way. All the people whom we have studied, even the Bushmen and the Ona, have been good craftsmen with wood and stone. But the Baganda have learned how to make things of iron. They make hoes and rakes, spears and axes, knives and chains, of iron. Tools made of iron are really made better than those of stone or wood. They are stronger, they will last longer, and the cutting edges can be made much sharper.

Money as Well as Barter

All the people whom we have studied have learned how to trade — to barter — with one another. The Baganda do that too, but they also use money in buying and selling things. As you study about other

peoples you will learn that all the more advanced peoples of the world use money in trading. They almost never barter things.

Government

One other new thing we have learned from the stories of the Baganda. That is the idea of "government." The Bushmen, the Ona, and the Eskimos have a kind of family government. Each family, or band of families, travels about by itself, and the father or some other wise old man of the family decides what the family shall do. In some cases the older men of the families decide together what to do. They are the government.

Among the Papuans the older men of the village are the government. Of course, only a few people live in each band or village, and there is little need of government.

But the Baganda are many in number, perhaps more than 1,000,000. They live in many settlements, or villages. There are clans, or large groups of families, and each is ruled by a chief. These chiefs choose the king, and all together make the laws and rules for doing things in Uganda. They are the govern-

ment. We shall hear much about government in our later studies.

Do you see, then, that we have learned new things by these studies about the Baganda?

Do you think these people are as simple as the others whom we have studied?



Ernst R. Schoedack

FIG. 76. The Bakhtiari women swing back and forth to the music of horn and drum in their simple dance

CHAPTER XI

The Grass Peoples of Asia¹

IT IS April in Persia. It is April on the Kuhrud. The Kuhrud are mountains running nearly north and south in Persia. See if you can find them on the map.

Hotter and hotter grows the sun as it beats down on the land. Browner and browner turns the grass. Each day the cattle and sheep on the mountains eat the grass closer and closer to the ground. Each day the cattle and sheep and horses find it harder to get their food.

Haidar, the chief of the tribe, looks at the grass drying up and at the sun, always shining over his head.

"We must start for the other side of the mountains," he tells us. "The grass will soon be gone. Sheep will die. Cattle will die. Then we shall die."

We, who are his guests, look out over the dry

¹All the photographs in this chapter are by Ernest B. Schoedsack. They are reproduced from *Grass* (G. P. Putnam's Sons), by the kind permission of the author, Merian C. Cooper.



Ernest R. Schuchman

FIG. 77. A camp of the "grass peoples," near the Kuhrud Mountains in Persia

plain. As far as we can see, it is bare. No grass! No bushes! No trees!

We look up at the land near the foot of the mountains. It is greener; there is a little more grass. The sheep and cattle and horses can eat up there.

We look still higher. Bushes and trees and grass are green. In a few days even that grass will be dried up. We must move up there before it is too late.

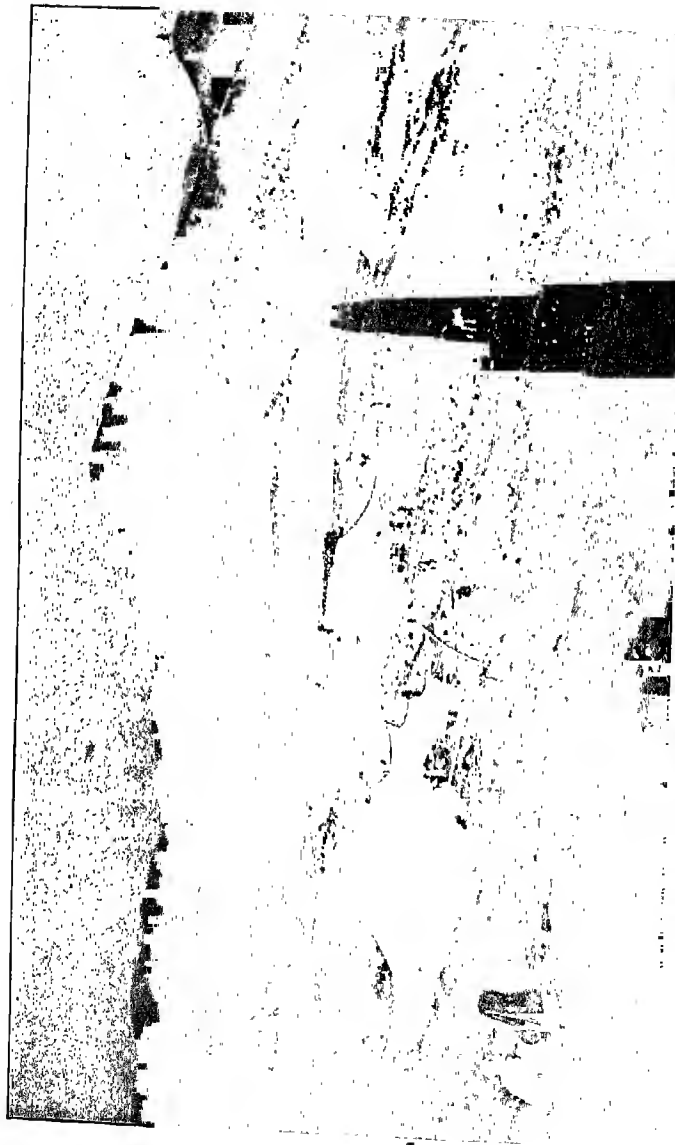
Far off are the mountains. High up on their slopes are green grass and trees; but on their tops, 10,000 feet high and more, it is white.

"Snow?" we ask. "In April!"

"Yes," say Haidar and his men. "There will be snow until the middle of the summer. We must cross now."

"But why must we cross those terrible mountains?"

"On the other side is a broad green valley," says Haidar. "In that valley in the summertime it is cooler, and there is more rain. The grass grows there all summer. The sheep and the cattle and the horses can eat there. We must go there quickly, before the grass on this side of the mountains is all gone. We cannot carry hay for the animals. They must eat as



Robert H. Schenck

FIG. 78. Haider and his people decide to move from this camp to the grass across the mountains

they go along the trail. We shall start from here just before the grass dies."

"What 'slaves of nature' people are!" we think. "Are there no people anywhere in the world who are the masters of nature?"

We shall see as we read more about how people live round the world.

The Chiefs and the People Get Ready

The tents are being taken down. The sheep and the cattle are coming in. We are getting ready to cross over the mountains.

We stand on a high rock and look out over the plain. For several days we have been living with a part of one of the great tribes of herdsmen. The Bakhtiari they are called. There are 5000 people in this part of the tribe. These 5000 people have been living in 1000 tents all winter. The dark-brown tents are made of goatskin. Some are in this valley, and some are in other little valleys just over those hills around us.

Now the people are coming together. Down over the hills they come, moving slowly toward us by the

hundreds. They drive their cattle and sheep before them as they begin their journey.

Haidar joins us. He points to the south and west.

"Over there hundreds of other Bakhtiari are getting ready. Beyond them, in other valleys like this, are still hundreds of others. Five thousand all together, with 50,000 sheep, cattle, and goats. Tomorrow they will come through here.

"Early in the morning more hundreds will come over those hills to the south and west and pass through where we are now. All of us cannot climb the narrow paths at the same time. The crowding will be too great. So we shall go up the hills first."

"Is that all the Bakhtiari — 5000 people?" we ask.

"Ah no!" says Haidar. He smiles. "There are ten times that many. We are 50,000, we Bakhtiari. I am the chief of this tribe. My nine brothers are chiefs over the others. We are the 'government' of the Bakhtiari. There are 50,000 people and about 500,000 animals."

"And all those must be moved over the mountains?" someone asks.

"Yes, all. In the spring we cross over, as we shall



Ernest B. Schoedassok

FIG. 79. Every boy must learn to shoot with a gun. Haidar Khan teaches his son, Lufte

now, to get the grass on the other side. In the autumn that grass will all be gone. Then we shall cross back again. Twice each year we do it.

"For hundreds of years my people have been crossing these mountains, seeking grass. My father and my grandfather and my great-grandfather led their people over the mountains. Now they are dead, and I am chief. I must lead the people and their animals safely across."

"What an adventure! Yet what a hard life," we say.

"Ah," he replies. "But we love it. It is *our* life. We could not live in your noisy city of automobiles and trains and tall buildings. We live out in the open, on our horses, with our sheep and cattle and goats, or in our tents. You live your kind of life, and we live ours. You live your kind of life because you like it. We live ours also because we like it."

"Will all the 50,000 people go up this way?"

"No, there are five trails over the mountains. All of us start together. Some will go up one trail; others will go up another. We shall meet beyond that mountain," said Haidar, pointing far away.

"From there we pass through the lands of enemy

tribes. We dare not go in small bands. The enemy would fight us, steal our animals, and kill our people. We must all go through together.

"You see we are well armed," he said, pointing to the guns that hung across the backs of the men. "The government in the city down there is trying to take our guns away from us. But we'll die before we give them up."

"Are there other peoples crossing these mountains now besides your Bakhtiari?"

"Oh, yes, many others. There are other great tribes. Some are away up north 100 miles or more. Some are south as far away. There are perhaps 1,000,000 people in these Kuhrud Mountains."

We go back to our tent, one of the few which is still standing. Most of the tents have been taken away. They will be left in the village over there on the hillside until the Bakhtiari come back in the autumn. The people cannot carry them over the mountains. They are too heavy. It will be hard enough to get themselves and their animals over. Then, too, they have summer tents in the green valley on the other side of the mountain.

So the Bakhtiari take only what they must have in order to live — a rug or two on which to sleep, a few pots and pans, some bags of grain, water bags, and the cradles. Yes, the babies must go too, strapped in wooden cradles, either on the backs of the mothers or, if the family has mules, on the backs of mules.

Finally we go to bed to dream of the exciting things to happen tomorrow.

Up the Grass Trail

Haidar wakes us while it is still dark.

"Come, the people are moving. It is cool now. We travel far before the hot sun comes up. Then we rest all afternoon."

We dress quickly. Then down comes our tent to be packed on a mule. Our rugs and a few other things are packed too. On our fine Arab horses we start after the caravan.

Already the leaders are far up the hillsides, working their way through the low valleys, the "passes." These passes were cut millions of years ago by rainstorms and flowing streams. So man today in traveling follows the easy paths made by nature.



Ernest B. Schoonack

FIG. 80. These strong women carry their babies on their backs, whether on foot or on horseback

What is that we hear? Music? Drums beating? Yes, it is. Drums and trumpets are sounding. A few men are acting as the band. The music helps the marchers and the animals up their long, hard way. See! some of the women are really dancing along, with the babies on their backs. Even the horses and cattle seem to have more strength.

The chiefs and other rich people ride their beautiful horses. There is a beauty, that white Arab. And what a handsome man is Rahim Khan, the young chief! In his white gown and dark round hat he rides, with a gun over his shoulder, a pistol in his broad belt, and a flashing sword at his saddle.

What riders these people are! Everybody who can pay for a horse rides. Look at those women. The tall, beautiful lady, one of the wives of the chief, rides ahead. What a picture she makes with her headdress of red silk blowing in the wind, her blue blouse, and her purple vest! How much they like color, these people of the out-of-doors. She rides without holding the reins. In her arms is a baby.

Behind her is an older woman. Would you believe it? She is holding an umbrella over her head. She too rides without holding the reins.



FIG. 81. Rahim Khan, the young chief, rides on his beautiful Arabian horse

Even the children ride. There is a boy of five, with his feet hardly reaching across the broad back of his horse. How can he hold on? We cannot tell, but he does.

Some of the people not quite so rich ride on mules. But most of the people walk. They drive their goats and sheep and cattle before them as they slowly climb up the low mountains. There's a balky cow over there that simply will not climb around those rocks. A little boy of six years is beating her with long sticks. At last she lifts herself up along the rocky hillside.

What are those things strapped to the backs of the cows? One is a little girl of three. Others are puppies. Some are little lambs. On the backs of some of the mules, goats are tied, standing straight up!

What noise and excitement!

Little donkeys trot beside their mothers. Here and there are lambs bleating as they run wildly about hunting for their mothers and bumping into animals and people.

We Camp for the Day

On and on we go up the trail. The sun comes up, and it grows hotter and hotter. Before noon, how-



Ernest B. Schoedsack

FIG. 82. Trumpet and drum help the marchers on their way

ever, we are over the top of the first hills. Then down to the plain we go, and there we camp. Little groups of families camp together. There are no tents, just walls made of saddlebags and things they have carried, with the horses and mules in the center. We shall rest out-of-doors from now on.

The men get the animals together, letting them eat the grass and rest for the day. They must be well fed and strong, for tomorrow we shall climb another little mountain.

The women give us the noon meal. For breakfast we had only a piece of bread. Now we get fresh milk just taken from the goats. Sour milk, or kumiss, is also served with some bread. Strong tea and sugar are served to us. Then we sleep and rest in the shade of a pile of bags until the sun has gone down.

At nine o'clock supper is served. We sit on rugs placed around a cloth. A bowl of steaming rice is placed in the center. Chunks of bread and bowls of thick sour milk are laid out too. Each one puts in his hand, takes out some of the rice, rolls it into a ball, dips it into the sour milk, and puts it into his mouth. Bread is good with it too. Then comes a platter of cooked mutton. A sheep has been killed for us tonight.



Ernest B. Schoedonk

FIG. 83. Up and up go the marchers, over the mountains of snow.

So the meal goes on for the whole camp. The poorer people get only meat and milk, with perhaps some cheese. But the sour milk is a good food.

That is the food which these wanderers generally eat — meat and milk from their cattle and goats and sheep, and kumiss and cheese made from the milk. Not often do they have bread, and they almost never have vegetables.

We Cross a River

Three days pass. The caravan moves on with much noise and slapping and pushing and pulling of animals. We cross over two rows, or ranges, of low mountains. Eight or ten miles is a long day's march in such country. So we rise before the sun comes up, travel until noon, and then rest.

On the third day we reach a rushing river with steep mountains on the other side. We stand on the shore, a little frightened. The water pours swiftly down the steep narrow valley cut in the hills. It rushes in whirlpools, and it is icy cold. There is no bridge. There is no ferryboat. There are no trees with which to build large rafts. How can we cross?

"We'll swim the river," says Haidar. "What!" we say. "Swim in that flood!" The water rushes

down and dashes against the sides. Surely men cannot swim in that stream! Even the animals would be carried away and drowned.

But these Bakhtiari know how. They have been doing this for years and years, Haidar explains, as he hurries about directing the men. "The men, the horses, the mules, the cows, and the sheep will swim the river. Some of the women and children will ride across on horses and mules. Some will go across on a raft."

"But the goats?"

"The goats will ride! They cannot swim!"

With great interest we watch what the people do. They take goatskins out of their saddlebags and blow them up! Ah, we know now. The men will swim across, lying on these blown-up goatskins. These are exactly like the water wings we Americans use in learning to swim at the beach in the summertime. The men will guide the animals and keep them from getting afraid.

There are goatskin water wings for the men and rafts for the women. The rafts have been made out of long sticks tied together, with many blown-up goatskins tied all round the sides of the sticks. A rug



Ernest B. Schoedsack

FIG. 85. With water wings of goatskin these Bakhtiari swim across the river

is laid on top of the raft. Women, children, and goats get on board, and swiftly across the rushing stream they go. The men guide the raft with poles, some swimming on water wings and some riding on mules or horses, which swim beside it.

At last, after several days of hard, hard work, we all cross the river. Only a few sheep and cattle are lost. One young man was killed. He was carried off his goatskin by the rush of water and crushed against the rocky shore farther downstream.

Planning to Cross the Top

At last 5000 people stand on the other side of the river and, with 50,000 animals, start up the steep sides of the mountain. Once on the top, they camp and rest for several days. They let the tired and frightened animals eat the grass in the pasture so that they will become strong for still harder days ahead. There are still higher mountains to cross.

Then we go on. Uphill and downhill we go for two weeks more. Two more rivers are crossed. The mountains become rockier and steeper. Harder and harder it becomes to drive the animals up. Slower and slower we go — five miles a day, four miles a day.

Longer and longer are the rests and eating periods between. The grass gets thinner and thinner. The chiefs plan carefully about the best way to get along.

Now we enter some forests. The grass gets heavier. It is tall, thick grass a foot or two feet high. Why is the grass better here? Why are there trees higher up in the mountains, when lower down there was little vegetation?

The young chief tells us. "We are now so high



Ernest R. Schoedack

FIG. 86. Like flies on a steep wall, the travelers struggle up the mountain side

up, about 6000 feet above the sea, that the clouds leave their rain here. Water falls on this part of the mountains. So grass and bushes and even trees grow here.

"There is another reason. The snow on the mountain tops melts in summer. In some places the water runs down under the ground. Right here it comes on top of the ground. So the grass grows better here than down below."

The chief goes on talking.

"We'll camp here for some time and get hay to give to the animals when we cross the icy tops of the mountains. At the top there is no grass at all. Now we must carry our grass with us."

So day after day we camp here. The men spend the days cutting the long grass. It dries in the hot sun and becomes hay. Then it is gathered up in bundles to be carried along. Day after day the sheep and the cattle and the goats will eat some of the grass. It makes them strong and helps them to climb up the snowy tops of the mountains.

Can you imagine how much is needed for 50,000 animals? All the 5000 people must help to gather the grass, dry it, and put it into bundles.

The Last Climb: Over the Snow-Capped Top

Now all is ready for the last climb. We come to the foot of the highest mountains. We look up and up. Can we get over with all these animals? Can we even get ourselves over? Surely we must dig our way through, for the snow and ice must be deep.

At midnight we start up. It is dark as pitch everywhere, but we must have hours in which to climb before the sun comes out.

What rushing about and moving there is! The noise and excitement of three weeks ago were nothing to this. Thousands of cattle, mules, sheep, and people are pushing, pulling, climbing, and shouting.

Yesterday Haidar and some of the other men cut a trail, or path, in the snow. Slowly great numbers of people and animals crawl up along this trail. It is a fighting, howling crowd.

There is fun too. The horns and trumpets blow gay tunes. The drums beat. The people sing and shout their Persian songs. It helps them to forget the hard climbing. We take our turn too and sing some of the American songs we know.

For hours we climb slowly up and up. It is cold,

biting cold, although it is May. But we are on the Zardeh Kuh Mountains, 12,000 feet above sea level, and we have no overcoats! The people are dressed in their light spring robes. How we all shiver as we push up and up in that last pull for the top!

Early in the morning the sun comes up. Warmer and warmer it becomes. Finally it is really hot, and the snow all around begins to melt. It runs down the valleys as little streams. Bigger and bigger the streams become until far down they are rushing rivers.

Next we reach another valley. But beyond are still higher mountains to climb. We camp, building fires to keep warm and to cook our mutton and rice. We shall sleep in a cold place tonight, keeping close round the fires.

Even here on the snowy top of the world the people amuse themselves at night before going to sleep. Some play their drums and other instruments and dance. Others gather around the fires and tell stories of long ago. These stories are passed on from fathers and mothers to sons and daughters. The young people listen to the old ones so that they can learn the stories of olden times. In the years to come they will

tell them to their own children and grandchildren on these very mountain tops.

For four days we go on in the same way — up at midnight, climbing until noon, resting in the afternoon. We watch these strong Bakhtiari. How can they stand it? Twice each year they go up and down this terrible trail: the women climbing; holding their babies in the cradles on their backs; wearing their cotton dresses; walking in snow up to their knees; falling down; becoming bruised on stones and cliffs; slipping on the ice. Barefoot and sore, these brave people drag their feet up that ice wall. If they lose hold they will roll down hundreds of feet and will surely be killed.

We look down at the thousands below us pushing us on up the trail. They must want grass for their animals very much to cross these mountains twice every year.

At last we pull ourselves over the last ridge of rock and ice and stand on the top of the world. There are no more mountains ahead. We have crossed the highest.

Going Down the Mountain

Now we can go down. It will be easier. We shall find the green grass for which we have made so hard a journey. We shall have reached the food for the cattle and sheep and goats, for the horses and mules. And because they live, we shall live.

Down, down we travel for two weeks more. We camp in the snow, going down the soft-snow trail. Day by day it gets warmer. Day by day the snow gets thinner and the trail easier.

At last, seven weeks from the day we started, we come down to the broad green valley. What a beautiful sight! Tents are going up. Cattle and sheep and goats are eating hungrily. Fires for cooking are being made everywhere. Men on horseback are moving about. Trumpets are playing and drums are beating.

The Grass People Are Home Again!

For about five months the "grass people" can stay in this broad valley. How they enjoy it! Although the women must do the cooking and care for the tents, the men will be lazy. For many days some of



Ernest B. Schoedonck

FIG. 87. Then down the mountain they go, along the winding trails

them do nothing. They sleep and eat, play cards, and chat with one another.

But they have earned their rest. For seven weeks they have worked as brave men. In the autumn they will climb once more over those mountains. They must go back.

The Climate Helps to Decide Where the People Shall Live

Once more we see how climate helps to decide how people shall live. You know that climate is three things. It is temperature; it is rainfall; it is winds. Do these three things, working together, decide much about the living of the Bakhtiari? They do, indeed.

1. The Temperature and the Rainfall

When the sun shines much and the temperature is high, then the grass dries up and the animals and the people starve. When the sun shines little, the grass does not grow and the animals and the people starve.

Rainfall is important too, for without it the grass will not grow. Then the animals will starve and the people will starve. Both sunshine and rainfall must be just right for the grass to grow and for the animals and the people to live and be happy.



Ernest B. Schoedsack

FIG. 88. What a beautiful sight to the tired travelers is this broad green valley of grass!

2. *The Winds and the Mountains*

But in the lives of the grass people the winds and the mountains are very important.

It is the winds that help to bring the rain to certain places. It is the mountains that help to decide where the rain shall fall. The Kuhrud Mountains of Persia show how that happens.

In the autumn and winter the winds bring the rain clouds from the west. The clouds strike against

the west side of the mountains. The vapor changes into water, and rain falls. This makes the ground moist, so that when the sun comes out the grass grows. During the autumn and winter the animals eat, and the people live, on the west side of the mountains.

The mountains are high, and the air on top is very cold. When the clouds pass over the top, the vapor in them changes to snow and falls on the top. So on the east side of the mountains the clouds have very little rain. Nothing grows, and all through the autumn and winter the grass dries up.

In the spring and summer the winds blow in the other direction. The clouds leave their rain on the east side of the mountains. In those seasons grass grows there. But on the very tops it is still cold and rocky, and on the west side little rain falls. So in the spring and summer the flocks must eat the grass, and the people must live, on the east side.

Do you see now how the climate and the mountains decide where the grass people live?

3. *The Soil Also Decides How the People Live*

Of course the kind of soil is important too. In rich black soil wheat and other grains can be grown if the

temperature and the rainfall are right. In soil having much gravel and some stones, potatoes and such things can be grown. Much rain is necessary too.

But in the land of the Bakhtiari the soil has much gravel in it, and the rainfall is light. The land is very high and the air is cool. So only grass will grow well.

Thousands of years ago the people who lived there found that out. So they learned how to keep herds of cattle and sheep and goats that could live on the grass. In this way they could have food. And they learned to have horses and mules to carry them and their things from place to place.

The Grass People Trade with Other People

But the grass people do not depend only on their animals and on grass for their living. They trade with other people.

Where do they get those fine guns and pistols and swords, those beautiful rugs in their tents, those fine clothes and boots? They cannot make them. Where do the bread and tea and sugar which they eat come from? They cannot grow them in the ground.

They buy these things from the people in the towns down on the lower plains. In these towns the

people weave cloth for clothes, and rugs for the floors and walls of their houses. They make pots and pans and knives. They make or buy guns and swords from other countries. They make lovely necklaces and bracelets and scarves that these mountain people like.

But the people of the towns do not raise animals. They depend on the grass peoples up on the mountains to do that. Each year some of the mountain men drive herds of animals down to the markets in the towns. And there, in the markets, they barter and they buy what they need.

The town people get the animal food they need and the mountain herdsmen get the goods they need. Each side makes something useful and exchanges it with the other side.

So it is, round the entire world.

Are the Bakhtiari Food-Gatherers?

In one way the Bakhtiari are food-gatherers. They are nomads. That means people who wander from place to place.

But in another way they are not wanderers. They use the same valleys for their cattle and goats each winter and the same valleys each summer. Although

they move from one valley to the other, they really stay within the same region.

Are these Bakhtiari as simple as the Eskimos or the Ona or the Bushmen? Do they depend on what they find in nature? Do they hunt wild animals or fish for food?

Not entirely; they raise some of their food. They raise herds of cows and sheep and goats. Their animals are not *wild* animals. The people take care of them. They find the best grassland for them.

Then too they prepare some of their food. They milk the cows and the goats each day. They let the milk grow sour and make kumiss out of it, which is a very good food. They also make cheese and butter out of the milk. These too are very good for them. They kill some of their sheep and cook the meat.

So we see that the Bakhtiari really raise their foods and prepare them. They do not depend on wild animals and berries and plants. They are not as simple as the Bushmen and the Ona. They are not even so simple as the Papuans.



Painting by Nicholas Roerich

FIG. 89. Great snow-capped mountains rise on all sides of Tibet

CHAPTER XII

Tibet, the Highest Country in the World

A Forbidden Country

WE HAVE studied many people and their lands, but Tibet is different from them all. It is a large country, with about 2,000,000 people. It is an old, old country. People have been living in that part of the world for thousands, perhaps hundreds of thousands, of years. And yet it is a forbidden country — forbidden to all but those who belong to Tibet.

Two things forbid people to come to Tibet. First, the rulers forbid foreigners to come there. They do not want anyone who does not belong to the country. Sometimes they let people cross over the edge, or boundary line, of the country and go to the nearest trading city. But from there the rulers make them go back outside.

Second, the land itself forbids people to come there. The whole country of Tibet is a tableland nearly

15,000 feet up in the air, with the world's highest mountains all around it.

What a wall of mountains surrounds Tibet! On the south and west are the Himalaya Mountains. To the northwest are the Karakoram Mountains; on the north are the Kwen Lun Mountains. On the northeast is the Gobi, one of the world's great deserts of sand.

Some of these mountains rise up 20,000 to 24,000 feet above the sea. They are snow-covered much of the year. Even the passes are from 16,000 to 18,000 feet high.

There is another way to enter Tibet. That is to come down from the north across the Gobi or to take the long, long journey from China, on the east. But to cross the Gobi is perhaps even more dangerous than to cross the tallest mountains. And there are mountains round the Gobi too.

Do you see now why we call Tibet the "Forbidden Country"? Nature forbids us to go there. The rulers of Tibet forbid us to go there, too.

What happens to people when they are forbidden to do something? Do they want to do it more than before?

That is what happened in Tibet. People from the outside want to go there. People from Europe want to go there. Americans want to go there. Chinese want to go there.

They have many different reasons, of course. Some want to go to trade and make money. Others want to see the country and the people and to learn how they live. Still others feel that they must climb those high mountains.

So some foreigners have gone into Tibet in disguise. That means they pretended to be the people of Tibet. They dressed in rough, dirty skins as the Tibetans do. They learned to speak the language. With the caravans of traders they worked, crossing the country even into the very city of Lhasa, where the rulers live.

The men let their beards grow and blackened their faces so as to look like the wild herdsmen of the mountains. For months their bodies were unwashed. They learned to eat the food which the poorer people ate.

Some of them succeeded in getting through the country. A few even lived in the forbidden city of Lhasa for several weeks (figure 90). They did this without being found out. One man, however, told

the rulers who he was, and they kept him a prisoner for some weeks and then sent him back to India. Some of the travelers took pictures and later wrote books telling what they had seen in Tibet.

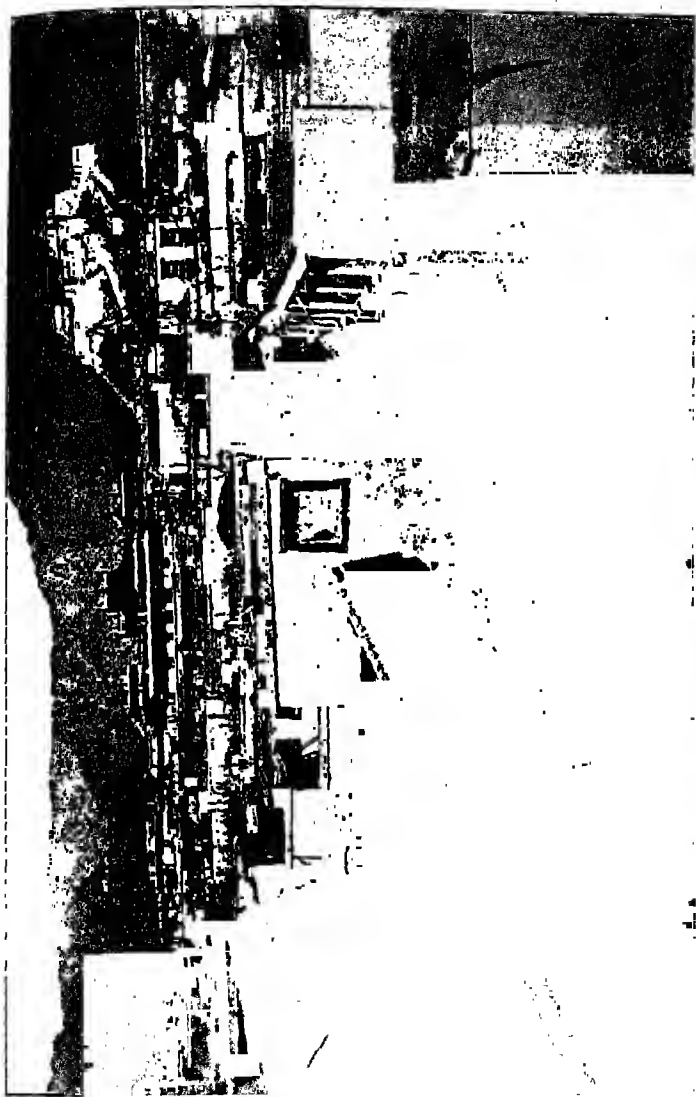
Let us imagine that we are going part way with one of these travelers. Then we can really see how the people live on the "roof of the world."

Climbing into Tibet

What is the easiest way to climb up onto this "roof of the world"? Travelers who have tried all the ways — north, west, east, and south — think that it is easiest to go north from India.

Look at the globe or map and see if you can find the way. We land at the big city of Calcutta, in India. It is the middle of summer, and it is very hot. The thermometer is at 110°! You can understand why. Calcutta is located just south of the Tropic of Cancer. It is in the torrid zone, and it is low land, right on the sea.

We start at once for the north, the Himalaya Mountains and Tibet. We think at the moment that the cold of the mountains is much better than this heat.



Miss Alexandra David-Neel

FIG. 90. The market city of Lhasa, where the rulers of Tibet live

But how do we go there? By train! Now we see why we came all the way round to India to get into Tibet. Although it is longer, it is easier and quicker. We can ride on a comfortable train from Calcutta to Darjeeling, 7000 feet up on the Himalaya Mountains. And Darjeeling is only 50 miles from the line where Tibet begins. Imagine being able to ride on a railroad train up the Himalaya Mountains and come within 50 miles of the Forbidden Country!

Darjeeling is the main trading city. Each year the caravans come with their wool to sell, and in its place they take back the goods which their people on the tableland need. Knowing that there are many white travelers with money to spend, the Tibetan traders also bring many cheap trinkets to sell.

We stop at Darjeeling to buy our supplies. Our loads are as light as we can make them. They are packed on the mules. We ourselves are riding the strong little ponies that the traders of Tibet use.

We start up the trail. For a day we climb up and up the south slope of the Himalayas. It is not so cool now, even though we are 8000 feet above the sea. We are riding along valleys in a thick mountain forest, damp and hot.



Science Museum

FIG. 91. Supplies in Tibet are often carried on the backs of yaks

Soon we shall be in Tibet, the land of no trees at all. Up there it almost never rains. But on this side of the Himalayas the winds blow the rain clouds in among the mountains. And because there is good soil too, plants grow well. Not only trees but rice and other grains grow in the green valleys just below us.

We Follow the River Valleys, Nature's Easiest Paths

The road, which is really only a narrow mule path, winds in and out. The mountains here are steep, so the trail winds in and out where the slope is gentlest and where the climbing is easiest.

We look carefully at this trail. It is winding in and out with a river. Wherever the river turns, our road turns too. That is interesting. Why does it do that?

We have learned before how many of the valleys have been made. Year after year when the rain falls and the snow melts up above, the water rushes down. Year after year the path becomes deeper and deeper through the rocks. Slowly it breaks the stones into smaller and smaller bits. In some places it leaves gravel and sand and mud; in others it makes a deeper cut,

So, in traveling, people follow the valleys made by the rivers. Yesterday we noticed that the railroads have been built in the valleys too. On our train from Calcutta we climbed 7000 feet up the side of the Himalayas. Not straight up did we go, but in and out round the sides of the mountains. Looking out of the car windows, we noticed that part of the time a river was below us. When the river turned, our tracks turned. Those who had built the railroad had followed the easy path of the river.

As we climb up our mountain way to Tibet, we are learning more about how people learn to live with nature. Slowly they are also learning how to master it.

Through the Pass into Tibet

For several days we wind our way through the forest river valley. Each afternoon we come to a little village where we stay the night. Next morning we mount our little ponies and mules and go slowly on again.

So closely does the trail follow the curves of the mountains that we hardly know that we are going up. On and on we go. After several days of travel

we come to a town on the mountain side. This is Gangtok, the last place in which we shall stay before we crawl up onto the Tibet plateau, or tableland.

From the little hut for travelers where we spend the night we look up at the Himalayas, which we must cross in the next few days. They are 8000 feet higher than we are. How can we get across? Through that pass in the mountain. That is Natu Pass.

Is that snow on top of those mountains? Yes, there is always snow there, but autumn is coming quickly now. It is getting very, very cold up there in the mountains. More and more snow is falling each day.

Our guide warns us in his best English: "Soon pass filled with snow. Last year 30 feet deep. Must go quick now."

The next day we have a long hard climb. By evening we reach the mountain village of Karponang, almost 10,000 feet above the sea. The forest is nearly all gone. The air is cool in the morning light, and the night is really cold.

The next day takes us to Changu. The trail makes us a little afraid. In some places our ponies take us over a path that has been cut into the side

of the rocky edge. It is only two feet wide. We hardly dare to look down. The valley is 2000 feet below. What a fall it would be to slide off this trail! We wish these animals would not keep walking on the very edge of the path.

At last we climb up and around the mountain, and in the evening we camp on the shores of a lovely lake. Now it *is* cold! We are 12,000 feet up. But we still have 2000 more feet to climb.

The third day we enter Natsu Pass. Now the trail is rough and full of boulders and dirt which must have slid down the mountain side only a few days ago. Here we have to get off and walk, leading the mules. Hour after hour we drag our way over.

Mountain Sickness

Higher and higher we climb. Our ears begin to ring. What is that queer feeling—a kind of sickness? The air is getting very “thin” now. It is hard to breathe. The guide, looking at us, says: “We rest now. Very high here. You not used to high places. You get sick if go too fast.”

We do feel sick. It is almost like being seasick. We feel very faint. We are dizzy. We have heard

that this often happens to people who are used to living lower down on the earth, near the level of the sea.

After resting we feel better. On we go, into a broad valley where trees and grass are growing. We look carefully; they are the last trees that we shall see. When we get up and out of this valley we shall be on the plateau of Tibet.

At a town we spend the night. Then up once more we go, and by noon the next day we cross the boundary line.

In Tibet at Last!

At last we are in Tibet, the tableland of the world. A soldier who climbed through Natu Pass to Tibet once made a joke about it. He said, "If this is a tableland, what we just climbed must have been one of the table legs." That last climb did seem like going straight up in the air.

We look about us. As far as we can see, the land is level. "Flat as a pancake!" we say. One of the party corrects us. "Flat as a table top," he says. Exactly. Tibet is well named a tableland, or plateau.

Far off in the distance are hills. Hills? No, those are very high mountains. Most of them are from



Xing Gallery

FIG. 92. A caravan of goats traveling through the Tibetan country

18,000 to 20,000 feet high. Some are 24,000 or even 26,000 feet high.

But why do these mountains seem so low? Remember that we are standing on land 15,000 feet above the sea. It all seems so flat and strong and safe that we cannot believe we are really at last on the "Roof of the World."

What a strange land it is! Not a tree is in sight, There is very little vegetation — just rocky soil with a few bushes. Here and there is rough grass.

We have heard that many of the people are herdsmen, moving with their yaks, which are a kind of cow, from pasture to pasture. We wonder how these animals can live on this grass.

A Country without Wheels

We wish to start on our way, but where is the road? The guide points — there, right before us. Is that a road? It looks to us like a trail where animals have walked. Yes, that is all it is, but it is the only road you will find.

But how do wagons ever go over it? They don't. There are almost no carts or wagons in Tibet. And there are not many better roads than this.

Here, then, is a country without wheels. The only wheeled carts one will find in Tibet are the few that are used in Lhasa and the other larger towns in celebrating festivals, as church holidays are called. And those are pulled by people, not by animals.

More about Climate

Now we can feel why there is so little grass and no trees. The air is very dry. Nearly everywhere throughout this country the air is dry.

At the same time the temperature goes up and down. On most of the plateau in midsummer the thermometer stands at 50° in early morning or evening and at 90° at noon. The sun is blazing hot, and those who are not used to it get very sunburned without knowing what is happening to them. Even now, in September, we have been sunburned. It must be 80° at least.

Farther north and in the higher mountains it is cold even in the middle of summer. The thermometer goes below freezing at night and rarely above 50° in midday.

But in winter the whole country freezes up. Then come temperatures far below zero. Even then, how-

ever, there is not much rain or snow in most parts of the plateau. Most of the moisture is left on the slopes of the high mountains around it. In an entire year most parts of the country get no more than eight or ten inches of rainfall. That is about the same as in the Kalahari Desert, you will remember. Many parts of Tibet might, in fact, be thought of as almost desert land.

What the Peasants Do for a Living

How do people live on this plateau, with so little rainfall and a very dry soil? Later we shall find out what they do in other parts of Tibet. Now we ride along toward Gyangtse, the last town to which foreigners like ourselves may come. As we ride we shall see what they do in the east and south parts of Tibet.

Now and then we come to little villages. Each one has 20 or 30 one-story houses. These are square and made either of dried bricks or of earth. The "rich" peasant of the village may have a two-story house made of stones which have been put together with mud. The outside is whitewashed.

In most of the peasant huts the family and the

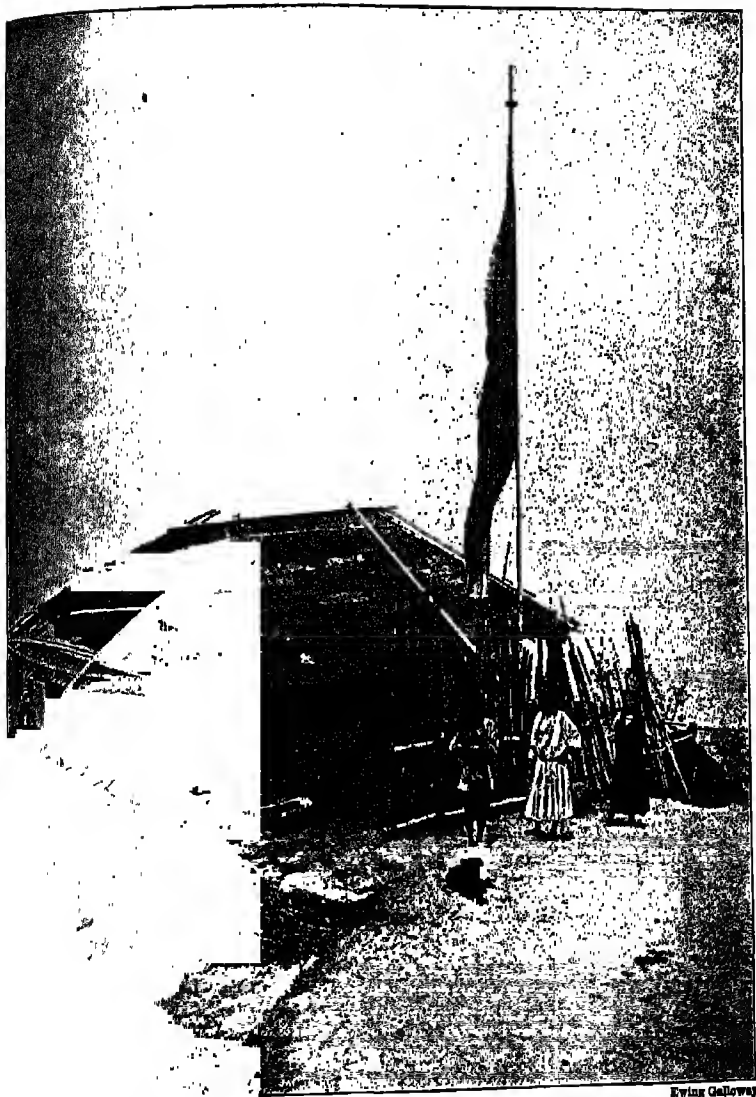


FIG. 93. A peasant hut like most of those in Tibet

young animals live together. We are sure that the people never wash. Their bodies are smeared with dirt and grease, and there is the same odor about them which we have met everywhere in Tibet.

As we come near to a village we see the families in their fields gathering the barley, which has now ripened. Barley is a tough grain — the only one that will grow in such a climate. Because of the cold climate the growing season is very short. Wheat and corn, which our farmers raise, will not grow. They need rich soil, much rain, and the long summer heat in which to ripen. These things Tibet does not have.

The people are threshing the barley. They do this by laying the barley on the ground and beating it with sticks. You can see them in figure 94. In this way they beat out the grain. Everybody helps — the women and children, as well as the men. The grain is then taken by the women and made into a kind of bread.

A Feast in a Farmhouse

We go inside one of the houses and eat a meal with the farmer and his family. His wife brings out a large pot made of earth, and in it makes some Chinese tea.

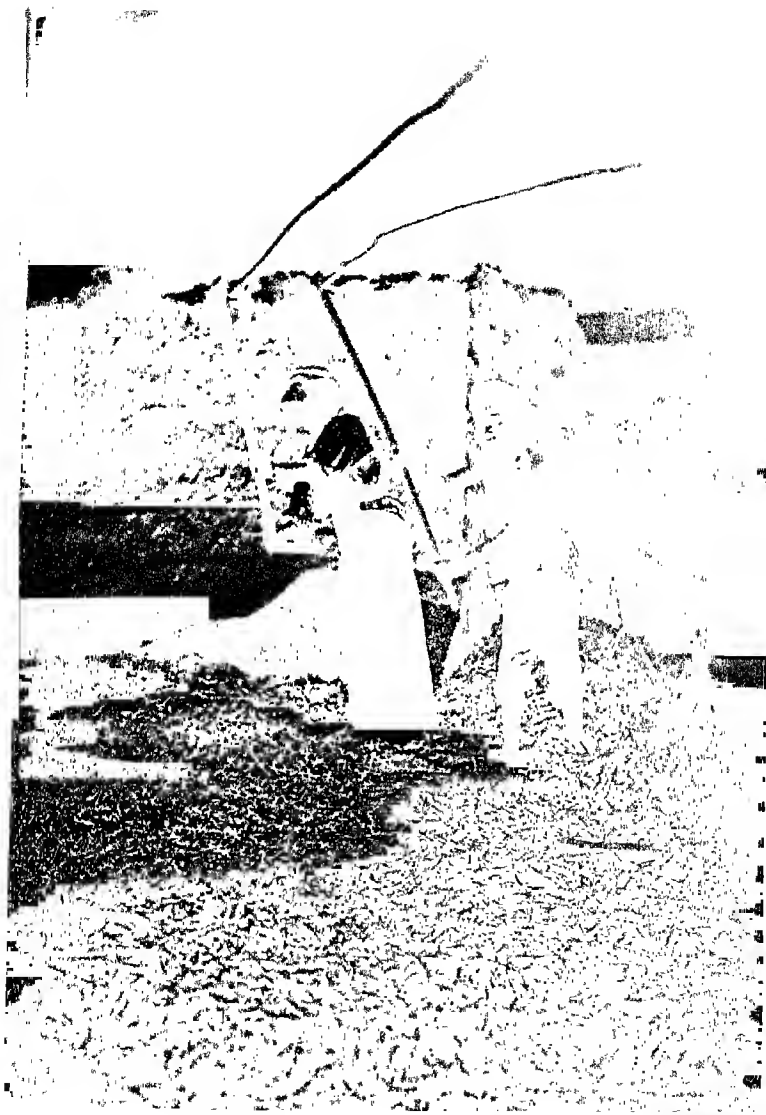


FIG. 94. The Tibetans' way of threshing grain

Ewing Galloway

With the tea she mixes some old, smelly butter. As she stirs the mess our guide looks on and says with a smile: "Butter very old. Make fine tea." But as the sharp smell comes up from the pot, we want to hold our noses and run away.

When the tea and the butter are all mixed, like thick cocoa, the woman puts some barley flour called *tsamba* into the mixture. All of us then reach into the pot and roll up balls of dough in our fingers. The Tibetans smack their lips over the *tsamba*.

Next the woman goes to the door and, with a knife, cuts some pieces off raw meat that is hanging on a peg on the outside of the wall. All the Tibetans eat the cold meat raw, each one taking a piece eagerly. Then they drink cup after cup of the buttered tea. Sometimes they take as many as 30, 40, or even 50 cups a day! With the chunks of raw meat and balls of *tsamba*, the meal goes on until everyone has had all he wants.

The Tibetans, like the other people we have studied, are great meat eaters. The soil is so bad and the climate so cold and dry that in most parts of the country they cannot raise vegetables and grain. There are few rivers, so they have no fish. So the



Ewing Galloway

FIG. 95. Tea time in a Tibetan village

Tibetans eat the meat of their cow (the yak) and their sheep. Raw beef and mutton are their main food the year round.

The yak also serves the people of Tibet in many other ways. The herdsmen, who live in tents, make their tents out of the yak's skin. The farmers' plows are pulled by yaks. Some farmers ride yaks. The Tibetans drink the milk of the yak as we do that of our cows. The milk is also made into butter and cheese. The Tibetans let the milk get very sour, and the older the butter is, the better they think it is. Our people, who like their milk and butter fresh, have a hard time learning to like these Tibetan foods.

A New Kind of Government : Priests Rule the Country

We spend the night in the peasant's house, sleeping on the earth floor on some dirty sheepskins. The next morning we go on without breakfast because we have learned the Tibetan's way of having only two meals a day. Within an hour we are in the town of Gyangtse, resting in the home of a foreigner.

Soon we go on through the market place. Here everyone is busy. There is much buying and selling



Living Gallery

FIG. 96. The monastery is where the priests of the church of Tibet live. Inside are many beautiful statues

of carpets, cloth, barley, brick tea from China, and many other things. People are talking and chatting.

On a high hill that rises out of the plain we can see a great stone castle. It looks like the castles that were built in Europe hundreds of years ago.

On the slope of the hill behind the town we can see the monastery where the priests or monks of the church live. These priests own the market place that we have just seen and much of the other parts of the city. They own much of the whole country! That seems strange to us — that the church should own a country and rule the people. But it does in Tibet.

We walk toward the monastery and arrive at a great altar, or shrine. This is called the Golden Pagoda and is so well known that people come from miles around to see it.

There are 1000 monks in this one monastery. All over Tibet other monasteries are scattered. As many as 2000 or 3000 monks live in some of them. In the very largest of all there are nearly 10,000. It has been said that almost one fourth of the men of Tibet become monks.

We go up the hill to the great hall, the most important building of the monastery. Here the monks



Miss Alexandra David-Néel

FIG. 97. Every year there is a festival in Lhasa. The boys dance in a procession on this day

gather every day for their prayers. Around the walls are many paintings. We are allowed to look at them. There are cups and bowls made of gold and silver, some of them decorated with precious stones. There are also bronze statues and some fine wood carvings.

We are permitted too to look into the library. Thousands of valuable books made of paper are kept here. Some have gold patterns stamped on the covers. A few are even written in gold.

As we leave the monastery and walk down the hill, we pass many monks. They are on their way to the great hall for evening prayers. We leave them behind. We have seen many interesting things today and are now tired and hungry. We are ready to go back to the house in which we are staying and eat our tsamba and drink our tea.

The Wandering Herdsmen of Tibet

But we must not be thinking that all the people of Tibet live in towns and monasteries or even in villages. The priest-rulers do live in the towns and in fine houses, it is true. But there are only a few towns like Gyangtse. And there is only one Lhasa — the capital city.

There are hundreds of the little farming villages, but they are only in those parts of the country where there is fairly good soil and enough rainfall. Throughout most of Tibet the soil is very poor and there is little rainfall. So the people cannot make farms.

But even in these parts people are living, although there are but very few in any one place. These Tibetans are wandering herdsmen. They are the nomads of the dry plateau. Like the Bakhtiari of Persia, they wander from place to place wherever the grass is. With their herds of yaks and sheep they stay wherever there is food for their animals. They too are slaves of nature.

The Grass People and Their Black Tents

In the north of Tibet, just south of the mountains, there is a large region where it rains in summer and the grass grows well. Here live many of the wandering herdsmen. Let us see what their ways of living are like.

Here the seasons have much to do with how the people live. Spring comes late in April or in May. The sun becomes warmer and the snow melts on the mountains and hills. The rivers flow again and grass

grows green once more. In July and August it rains hard. The grass grows thick and high. Now the herdsmen and their flocks are happy.

In September come clear cold days, and the herdsmen get ready for the cold season. In October winter is upon them.

Then for six long months it is bitter cold. Everything freezes up tight. Terrible winds come from the west. Blinding snowstorms last for days, sometimes killing all the yaks and sheep of a family's herd. Sometimes the herds of rich families are killed in one night, and these people become poor wanderers.

Like the Copper Eskimos and the Bakhtiari, these herdsmen of Tibet live in tents. The black tents of the Tibetans are well known to travelers. Figure 98 shows you what they are like.

The tents are made of yak wool. The men of the tribes spin the wool into threads as they sit on their shaggy horses tending their flocks of yaks and sheep. In the tents themselves the women weave the black yak cloth from these wool threads.

The tent of the poor people is hung on two poles and is quite large. A wall of stones is often built up round the tent to protect it from wind and sand.



Fig. 98. Terrible winds and blinding storms sometimes destroy the tents and the animals of the sheepherders

The fire is built in the center, and a hole is left in the top for the smoke to pass out.

Yak and sheep skins are scattered about on the ground and are used to sit on and to sleep on. Bags of butter and tsamba, boxes of tea, and pack saddles are everywhere. At night the family sleep on dirty, smelly sheepskins, crowded close to the fire. The young lambs also sleep in the tent, but the older animals are left outside.

The chief's tents, of course, are very large, holding as many as 50 or 100 people. Beautiful rugs are on the ground. The people sleep on fine mattresses. They eat at tables and use fine silver dishes. Life is very comfortable for them. They are few in number, and the peasants and herdsmen must support them.

How Work Is Divided

Work is hard for these herd people of the high plateau. Men and women divide the work between them. The women do most of the work of the house; the men guard the herds and take them to the markets in the towns once or twice a year.

The women rise early in the morning, build the fire, get the water, boil the tea, and let the yaks and

sheep out of the stone wall around the camp. These animals have stayed inside the wall during the night. They have been watched and protected by the huge black dogs known as Tibetan mastiffs.

The others of the family — men and children — get up, pull their sheepskin coats around their bare bodies, and creep close to the fire, reciting their prayers together. Breakfast is a ball of tsamba, buttered tea, and, perhaps, cheese.

After breakfast the men go out to hunt wild animals or to guard the herds of yaks and sheep, taking their big black dogs with them. They carry their long swords and guns with them wherever they go. This is partly to protect themselves against the wolves. But it is also for use in trouble with robbers. As in other wild regions, robbers go about in bands, stealing things from camps and villages. The rulers in Lhasa and other cities cannot send soldiers to protect the people, so the people protect themselves with their guns and swords.

While the men are away the women milk the cows and arrange the tent. They look out for the children, weave the black yak cloth, make the yak skins into leather for clothing, and prepare the meals.



Ewing Galtway

FIG. 99. These women of the richer people are dressed for a holiday festival

In the evening, after the supper of tsamba and buttered tea, cheese, and cold meat, the people sit around the fire. Some tell the latest news from the passing caravans. Some say prayers in low, singing tones. Some recite tales of their heroes of days long ago. Then they all curl up in sheepskins round the fire in the center and go to sleep.

The dress of the Tibetan herdsmen is made out of

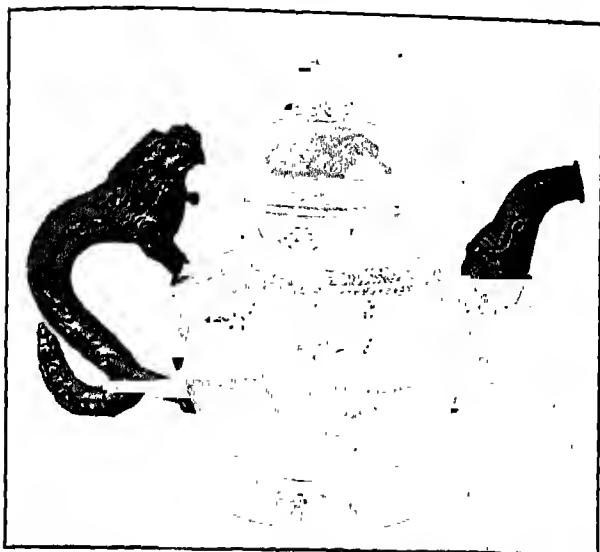


FIG. 100. The wealthy people use many beautiful things like this teapot in their homes

the things they have at hand. Men, women, and children wear heavy long sheepskin coats. Most of them wear nothing underneath, throwing the coat around their naked bodies. Some of the men wear big trousers made of yak wool which the women have woven. On their feet all wear high boots. The soles are made of the hide of the yak, and the legs are of yak cloth.

Of course the rich people wear fine silk and cotton

coats and gowns, as well as red and black leather boots made in China or Russia. Their garments are colored purple or violet and are beautifully ornamented. But most of the herdsmen and the village peasants do not have enough money to buy such things.

This, then, is how people live on the "Roof of the World." There are a few wealthy people and many poor peasants and herdsmen. The priests of the church rule them all.

In Tibet, as in the other places we have studied, climate plays an important part in the way the people live. Now that you have read about the Tibetans, can you see how that is true here?

•

CHAPTER XIII

The Arab Bedouins of the Sand Desert

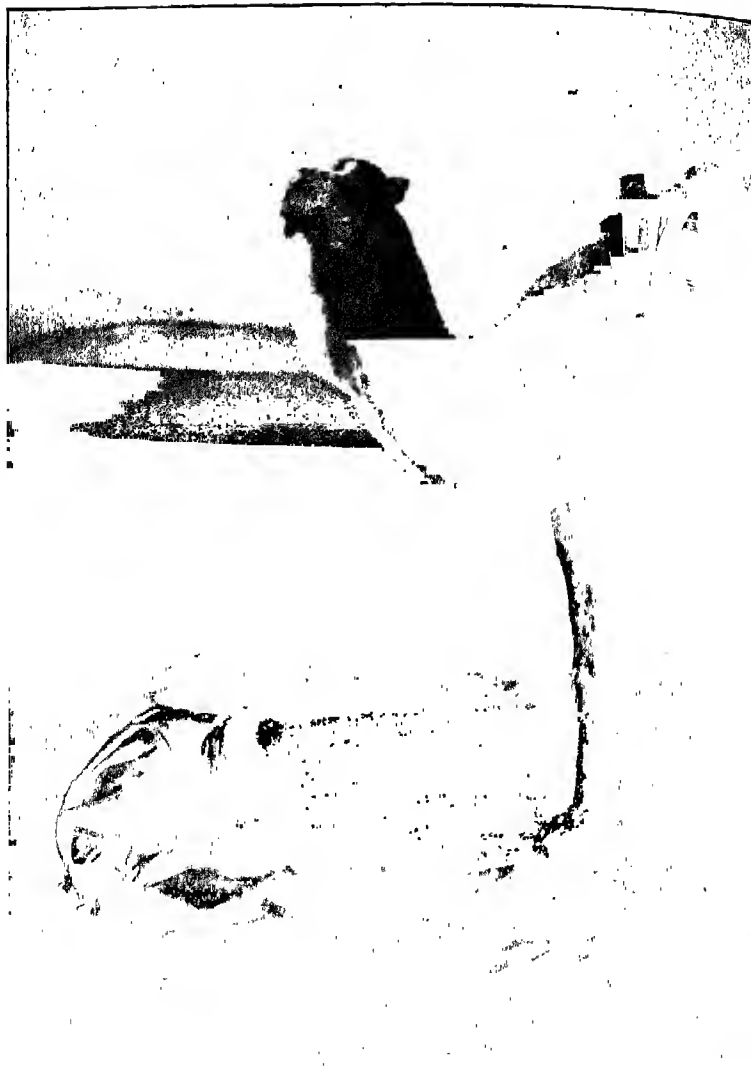
Animals and People

"ISN'T IT interesting?" said Nancy. "This book I am reading says that the people of the Arabian Desert depend upon camels. They ride on camels. They drink camel's milk. Sometimes they eat camel meat. They wear camel's-hair clothes. They sleep under camel's-hair tents. Why, they just depend on the camel for their very lives."

"Yes," said Charles, "that's like some of the other people we have been reading about. The people of Tibet eat yak meat, drink yak milk, wear yak-wool clothes and yak-hide shoes, and sleep under yak-wool tents."

"And the Eskimos," exclaimed Tom, "are like that too. They depend on seal and reindeer."

"The Ona depended upon the guanaco," added Mary.



Published Photo

FIG. 101. Without the camel, life in the desert would be difficult, indeed

"Do we in the United States depend upon one or two animals only?" asked Miss Brown.

"No," said all the children. And Nancy said: "We have cows and horses and hens and sheep and pigs. We eat many kinds of meat and vegetables and grain and fruit."

"Yes," said Miss Brown. "These people we are reading about are all rather simple people. They seem to need fewer things than we do. Then, too, they live much more out of doors than we do. That's especially true of the Bedouins of the Arabian Desert. They are really an outdoor people. They are always on the move too, never staying in one place very long. Let us read about them next."

Arabia Is a Peninsula

On your globe find Arabia. It is a large peninsula that seems to hang between Africa and Asia.

"What's a peninsula?" asked Charles. "That's a new thing. We've learned island and continent, but not peninsula."

"The dictionary says," spoke up Mary, who was always ready to tell what the book said, "that a peninsula is 'a piece of land nearly surrounded by

water.' That's different from an island, isn't it? An island is a body of land with water all around it."

"Exactly. You can sail all the way around an island but not around a peninsula," said the teacher. "Look at your world map, or, better, look at the globe. What peninsulas can you find?"

"I see one — Italy," said Martha. "There's water all around it except on the north. That surely is a peninsula."

"I see another — Norway and Sweden together," said Charles.

"Yes, they are called 'Scandinavia.' Yes, that is really a peninsula. Water is on three sides of it. Now look at other continents. Can you find any peninsulas?"

"I see one in North America — Florida."

"I see another — Lower California."

"And still another — Yucatan."

"Some people call India a peninsula, even though it is very large," said Miss Brown.

"And there's a long one in Asia — the Malay Peninsula," said Ralph. "What a long one it is! And Korea is one too."

Nancy spoke up. "I don't see why Europe is not

a peninsula instead of a continent. We called it a continent. But really it's very small, and water is on three sides. Why isn't it really a peninsula?"

"Some people call it that," said Miss Brown. "They call all of Asia and Europe together one continent. The name is Eurasia. They think of Europe as merely a peninsula on the edge of Eurasia."

"Then some people might call Europe a continent, and others might call it a peninsula," said Jane.

"Yes, exactly," said Miss Brown. "Now let us look at Arabia. Do you see that it is a peninsula?"

"Of course," said Nancy, turning the globe. "It can't be anything else. There's water on three sides."

"What bodies of water are on the three sides?" asked Miss Brown.

"The Red Sea and the Suez Canal are on the west side, the Persian Gulf is on the east side, and the Gulf of Aden and the Arabian Sea are on the south."

"This book says that it's a very large country, too," said Mary. "It's six times as large as France. It's larger than Tibet."

"But there are not very many people in it," said John. "Only 7,000,000 people live there."

"What kind of place is it?" asked Jack.

"Well, it's different from any of the places we have studied," said Miss Brown. "It is a sandy desert in the middle, with hundreds of miles of sand. There are no rivers and no brooks. It does not often rain. Almost no people live there because there is so little water. People can live there only if they carry water with them from one water hole to another. Some of these water holes are many, many miles apart."

"Has anyone ever crossed that big sandy part?" asked Charles, studying the map. "I see no marks on it to show villages and towns where people live."

Miss Brown took a map from the shelf. "None of the old maps, those made before 1931, are correct," she said. "The people who made them thought that no one at all lived in the great Arabian Desert. They had never gone there to find out.

"But in 1931 a brave man named Bertram Thomas really went across it. He started into the desert on the south in December, 1930, and came out months later. All that time he rode on camels, and went only with the Bedouins, the people who live in the desert. He ate Bedouin food. He dressed like a Bedouin. He slept in Bedouin tents.



May 1930

FIG. 102. A Bedouin camp in the Arabian Desert

"He was the first man who did not live there to cross that great desert. Later he wrote a book about it, so now we know that there are people there. Would you like to know what he found out about the desert people and how they live?"

Let us imagine we are on the trip with Bertram Thomas. We shall see the desert and its people as he did. We shall see it as he wrote it down each night when he stopped to camp. He wrote what had happened during the day. Later this was printed in his book *Arabia Felix*. That means "Happy Arabia." See if you can think why he called it that.

Crossing the Arabian Desert

For several days we traveled through the mountains along the Gulf of Aden. We had left Dhofar with a caravan of 35 camels and 20 men. We had hired these men to lead us through the desert.

Loaded with tents and boxes of food, the camels slowly made their way along. What a feast the camels had those first days! There was always plenty of long grass to eat. It rained too, and both camels and men had enough water to drink.

The Arab Bedouins of the Sand Desert 303

The men in the party were all Bedouins who had always lived in the sandy desert of the south. But Salih, the chief, or sheik, warned us. He could go only so far, he said; only to a certain water hole. Beyond that the land belonged to the Murras. In the country of the Murras their lives would not be safe.

"We are at war with the Murras," said Salih. "They will attack us. They will crawl up quietly at night and shoot us. They will steal our camels and, if they can, our food and our guns. They will even take our clothes. You will not be safe."

We decided that we must watch very carefully.

All Aboard for the Next Water Hole

As we went slowly forward on our camels those first days we understood one thing about the desert: water means everything to the people who live there. Everything we did seemed to be decided by water. One day Salih would say, "Only two days more to Shisur Water Hole." Another day he would say: "Must stop now. Camels need eat and rest. All depends on camel. He has water enough for three days more. That will take us to Safif Water Hole. But here are

grass and bushes. Give camel food. Then he will take us. Give him no food; we not very safe."

So we stopped to rest and feed the camels, although we were very eager to go on to the next water hole. A trip across the Arabian Desert is planned carefully from water hole to water hole. We can go only so far each day so as to reach the next water hole at the right time.

To call their names sounds like a railroad man calling out names of stations in the United States. All aboard for Bil Afen Water Hole, Shanna Water Hole, Khor Dhahiya Water Hole, Bil Ashush Water Hole, Sabla Water Hole! Their water holes are named, and the Bedouins know where each one is.

When we were still many miles from a water hole, the whole tired and thirsty caravan began to feel better. Camels and men seemed to be able to "smell" water far off. The camels held up their heads, sniffing the air. They walked much faster. The men began to laugh and sing and make noises as though they were drinking. Everybody felt better. Water was near by.

Perhaps three or four hours later we went up over the last little hill of sand. There, below us, but quite



Ewing Galloway

FIG. 103. Filling the bags at a water hole in the desert

a way off, was the water hole. We dared not rush to it too quickly. First we had to make sure that no enemies were lying just beyond that other ridge of sand, waiting to shoot us down and steal our camels the moment we went to the water. So we sent some men way out around the hills of sand on each side of the hole to see if any enemy was near.

Having made sure that nobody was hiding near by, we rushed down to the hole. Down on our stomachs we fell and put our mouths right into the pool. The camels crowded around, reaching their long necks down into the fresh water and lapping it up with their big lower lips. The men drank the water and splashed it up and down with their hands in joy at having it again.

Too long had we all been drinking the water with which we had filled our bags of goatskin four days ago. There is nothing so refreshing as a drink of cold fresh water to a thirsty man.

In the worst heat of summer most of the traveling had to be done at night, and the sleeping in the daytime. But the heat went right through the tents, making sleep impossible. So we all grew more and more tired. How we wished that the blinding sun

could be hid by heavy clouds so that we could ride a whole day long!

Rain in the Desert

Then at last came signs of rain. The Bedouins and the camels knew it a day before we did. They have lived in the desert so long that they have become quick to see and feel things far off. They laughed and talked of the coming storm. How soon would it come? Oh, tonight or tomorrow, perhaps.

Then sweet music of rumbling thunder came to our ears from far away. Sure enough, a thunder shower was coming. We marched faster, happy with the thought of it.

Soon came more claps of thunder. A cooling wind began to blow. Clouds appeared in the sky. At last they covered the blistering sun. It seemed cooler already.

Now the wind blew up a sandstorm. We camped quickly, getting under the tents. The camels lay down and hid their heads as much as they could.

Then came the welcome rain, soaking everything — animals, tents, men. But no one cared. It felt so fresh and clean. Then it was really cold!

The thermometer must have gone down many degrees in the past hour. How happy the men and the animals were as the rain came after the weeks of hot riding!

As soon as the storm was over we went out to find the new pools of water that the rain had left. Here and there were bare stony places where the sand had blown off. On them was delicious water. We drank as much as we wanted. The camels drank and drank, enough for three days. Then we filled our goatskin bags. We felt that we could go on for several days more.

What a difference water and a cooler atmosphere make in what people think and do!

Life in a Bedouin Camp at Night

Making camp in the Arabian Desert is not an easy thing to do. There must surely be "pasture" for the camels. In the middle of the afternoon a few of our Bedouins went ahead in several directions, looking for places where there were grass and bushes to eat. They came back and showed us where to go. Slowly all the camels were brought in to the place.

At night each camel has his rein tied to one leg

¹From Bertram Thomas's *Arabia Felix*. Charles Scribner's Sons.

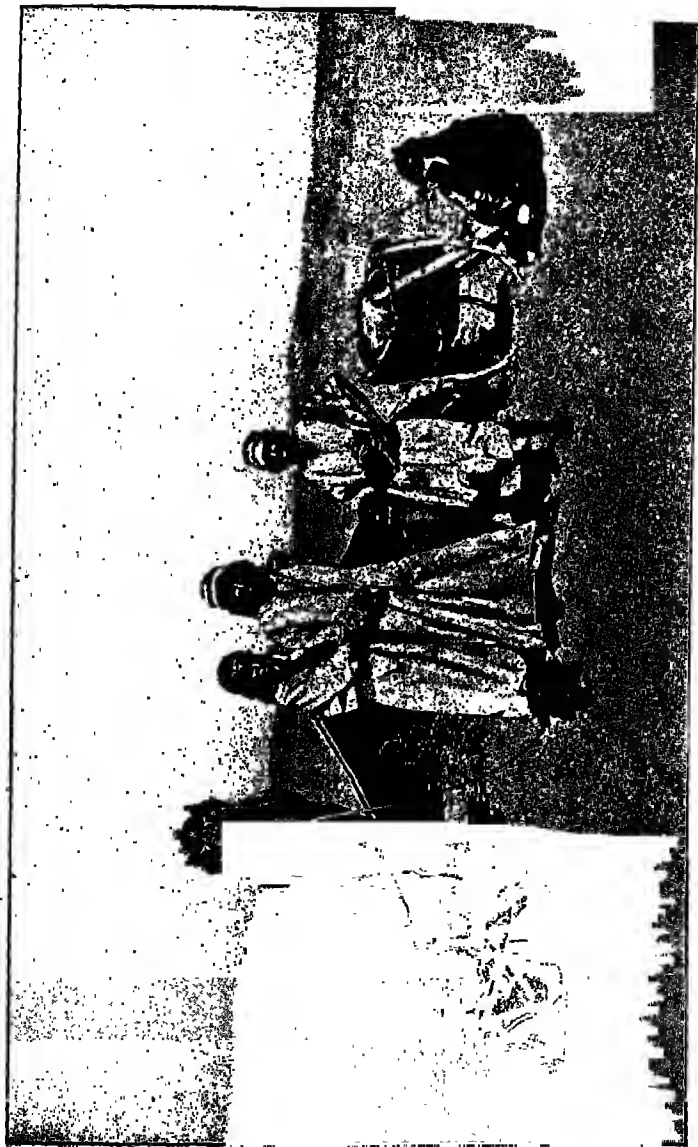


FIG. 104. Making camp in a place where the camels will have enough to eat.

so that he will not wander away from camp. If there is plenty of grass the camels are left to themselves to eat it. If not, the people go around gathering armfuls of bushes and grass to feed them. No matter what happens, the camels must be fed.

Night was coming on fast. The sun was down, and it was growing cold. Several campfires were built; and around them we gathered in little groups, saying the prayers and singing the songs of their religion. Then hungrily we sat there, watching our cook make the bread and cook the evening meal.

As with all Bedouins, there was only one real meal each day. In the morning we ate only a handful of dates and had a drink of stale water. At noon we had only a drink of camel's milk.

The cook put flour and water in the pot, mixed them, and squeezed them into a soft dough. This dough he divided into small round balls and patted them down flat. Then he laid them right in the burning fire to cook. Soon they scorched, or burned on the outside, and he turned them over. Over and over he turned them as they scorched on each side.

When he thought they were done on the outside, he put them into a hole of hot sand beside the fire.

Soon they were all cooked. He took them out, blew off some of the sand, and we ate them. The Bedouins think they are wonderfully fine, even though there is a heavy dough inside.

With this bread, camel's milk, and some dates for dessert, we made our evening meal. Some days the men caught little wild animals like hares and cooked them for supper.

After supper everyone gathered around. Stories were told. The adventures of their great leader Ibn Saud were told and told again. Songs were sung, and finally we prepared for bed. We had brought blankets with us, so we rolled up in them on the hard ground under the tent. Even with these we were cold, however; for the sands of the desert are cold at night, even though they are blistering hot in the sunlight of the day.

Most of the poor Bedouins had no bedding or blankets. They took off their thin cotton gowns and lay on the sand. They covered themselves with their gowns.

The wind came up and cut through us like a knife. Even those who were close to the fire shivered! The women lay under the little tents on dirty rugs. They



Underwood & Underwood

FIG. 105. At night the Bedouins gather around the fire to tell stories of today and long ago

The Arab Bedouins of the Sand Desert 313

too were wearing only thin trousers. They had taken off their gowns and used them as sheets. Imagine not having even one blanket at night, with the thermometer below 50°!

After a shivery night we all got up before day-break. Marsuq called us to prayer, saying aloud:

"God is great.

There is no god but God.

There is no god but God.

I bear witness that Muhammad is the Prophet of God.

I bear witness that Muhammad is the Prophet of God.

Prayer is better than sleep.

Prayer is better than sleep.

God is great.

There is no god but God."

Then the camels were brought in and saddled. The tents came down and were packed on some of the camels. We started off again. We tried to get as far as possible before the hot sun came up.

Look Out for Enemies!

Day after day the march went on from water hole to water hole. But we were always watching for enemy bands. All day long, day after day, some of our scouts rode far away on the sand hills at the

right and left of us. Others went much farther ahead, always watching for people who might attack us. Suddenly, perhaps, they would come back on their racing camels, shooting their guns as they came.

"Danger! enemy Arabs!" they would shout.

Quickly our Bedouins would drop the loads off their camels and race them ahead to meet the scouts. Together they would ride off toward the enemy, shooting as they went. This was to frighten the enemy and to make them think that we had many men and guns and camels. Carefully they would ride up the next sand dune and go on in the direction of the strangers. Then they would turn and run off as fast as they could. How swiftly their camels can go! One of them, that belonged to the leader, was a white camel. These white camels are famous as racers, especially in the northern part of Arabia.

Everything Depends on the Camels

We soon learned how much people depend on camels in the desert. Whether we started early or late, the Bedouin was always asking if his camel had enough to eat, if the sun was too hot for his camel, if the loads of boxes were too heavy for the camel.

Never is anything said about the people. It is always about the camel.

Why was that true?

Because our travel depended on the camel.

We could not ride through this sand were it not for the camel. The hoofs and legs of horses or mules would sink down too deeply into the sand. The camel's feet have pads on them and seem to be made for these soft sands.

Horses could not walk in this heat more than three or four hours without a drink. We should have to carry water in great bags for them, as we do for ourselves. The load would be too great.

But the camels carry their water in a great pouch or bag in their own bodies. In the hot summer they can go for two or three days without a fresh drink. In winter they go fifteen or twenty days without water. But they must have food much oftener than that—at least every day. We must let them eat whenever we find a bit of grass or some bushes.

The Children and the Camels

The Bedouins live with the camel from the time they are children. It seems almost as if they can ride

when they are babies. The little children are so used to camels that a boy of five can make a tall camel do just as he wishes.

The boys and girls grow up tending the camels, riding them, feeding them, and watering them. The boys learn how to direct the riding camels and to milk the female camels. They also learn how to cut off the camel's hair at the right time. The girls are taught by their mothers how to spin the camel's hair into threads and weave it into cloth for clothing.

Another thing which the boys must learn is to kill camels for food. The camel's meat tastes delicious to the Bedouin. But he cannot eat it often. Most of the time the people will have only the camel's milk. That is why every caravan has many female camels. Nobody is allowed to ride them. No loads are put upon them. They are taken along only for their milk and their hair.

The boys learn also how to skin the dead animals and to make the hides into leather for tents. Some of these tents are very small, hardly large enough to crawl into or lie down under. Inside them the "furniture" is simple, indeed. Perhaps there are only the saddlebags, the tools used in spinning and

weaving, the goatskin water bags, some leather buckets, a stone to use as a hammer, an iron bar with which to dig a water hole, a skin or two to throw on the ground, and antelope horns for tent pegs.

If this is all the poor Bedouins own, it is surely "the simple life," we think. But they could not own many things. For the Bedouin of the sandy desert can never stay in one place more than a few days. In the daytime the sun drives him toward the new water hole. As soon as the grass and bushes around it are eaten by the camels, he must march on. Night is the best time to travel, so he gets little sleep.

Those Arabs who live on the edge of the desert in the grassy mountains can have regular homes. But most of them are too poor and live in caves. Some of these caves are large enough for the camels to stay in during the hot daytime. At night they are put out to feed. But even these Arabs of the mountains love the wandering life of the desert. They put their belongings on the camels and start on the march of the water holes.

Changing Guides

On we went, day after day, until we came to the end of the country where our guides were safe.

"This is Murra country now," they told us.

At a water hole we saw some Murras. These people saw us too and sprang up, rifles in hand, running to their camels.

We went forward, calling to them the name of one of their famous sheiks. They stopped. Then we Americans went toward them, still calling out the words they knew. At last we came close to them and showed them a letter which their sheik had given us, hoping that one among them could read.

Finally they put down their guns and received us as friends. But our guides? No, they are enemies; they must go away. We talked for a long time, and at last they said they would guide us. We could hire their camels for the rest of the journey across the desert. Opening our boxes of silver coins which the pack camels had carried for more than a month, we paid their wages to the Bedouins who were leaving. Then they started back for their own country.

Now we went on with the Murras, our new guides. With them we were safe. Day after day we traveled. Finally, nearly a month later, we came to a great town on the sea. Our journey was over. We had crossed the terrible desert.

Towns in the Desert!

Now for a surprise. There are towns in this desert country of Arabia. In these towns live farmers and craftsmen who do not move about but stay in one place.

Does this astonish you? - It should not. How would the wandering Bedouins of the desert live if towns were not at hand?

Where would they get their coffeepots and their iron pots for cooking? They could not make them in the desert. They must buy them in the towns.

Where do they get the wheat or rice flour to make the bread buns which they cook over their evening campfires? From the merchants in the towns, who have it brought from India and Persia.

Where do they get the guns with which they are always fighting their enemies? From the merchants in the towns, who buy them from America or Europe.

Where do they get their flowing gowns? From the tailors in the towns, who make them; or from the merchants who buy them from the tailors.

Where do they get the perfumes which they use all over their hair, bodies, and clothes? From the



Living Gallery

FIG. 106. The main street of an Arabian town

The Arab Bedouins of the Sand Desert 321

merchants of the towns, who brought them from far-off lands by boat and by train.

So we see that the towns are very important in Arabia, as they are in every other part of the world.

The Oasis: A Place Where Plants Will Grow

As you traveled in your mind across the desert, were you thinking that there were no plants growing there? If you were, then look at the picture of things growing about these towns of Arabia (figure 8). Such green gardens! Such large groves of tall palm trees and waving fields of wheat and vegetables!

Scattered over some parts of the Arabian Desert there are places where water comes out of the ground. This is not just a small spring, as in the usual desert water hole. The water flows out in a great rushing stream. Around the edge of the desert, near the coast, are many such streams. Even 40 or more miles inland, away from the coast, these large springs come spouting out and flow on the ground as large pools or even as little ponds.

In Hasa there is one spring that runs along for ten miles. It waters the land for a space twenty miles long and ten miles wide. One can paddle a canoe

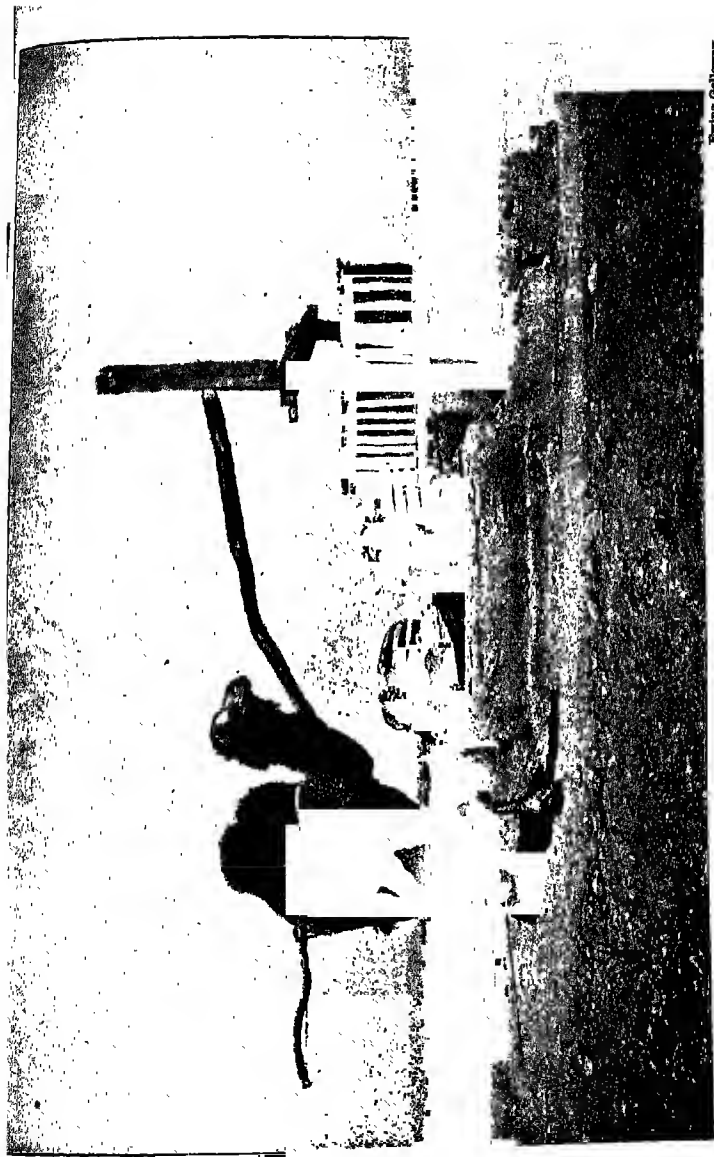
over a pond that is a mile long at the place where the spring comes out of the ground. We can walk or ride along beautiful roads with lovely palm trees, shrubs, and rosebushes on every side. Fields of tall grass, or alfalfa, wheat and barley, vegetable gardens, and peach and fig orchards can be seen far and wide.

Such a watered place in the desert is called an oasis. Your dictionary will tell you that "an oasis is a fertile or green spot in a desert."

A "spot," indeed! A very large spot it sometimes is! There are 100,000 people on the oasis of Hasa. This is as many as in some of our rather large cities. There are many other oases besides Hasa.

In some of the oases water does not come rushing out on the surface. Wells are dug, like those in figure 107. In some of these the water is only a few feet below the ground. In others, like the big desert city of Riyadh, wells are dug down nearly 100 feet deep.

How do they get the water up from the well with which to water the land? A very slow way is to have people pull it up in skin buckets and empty it on the land. Another way is to tie a rope to a bucket and to a pole. A camel walks around the well and



Erving Gellonay

FIG. 107. As the camel walks around the pole, he turns the wheel which pulls up many small buckets of water

pulls up the bucketful of water by winding the rope around the pole. Usually it is done as is shown in figure 107. An animal walks around the pole turning two wheels. On one of the wheels are buckets. They bring up the water. The water runs out in ditches over the land. It waters the roots of the date palms. It waters the fields of vegetables and alfalfa. This way of watering the land is called irrigation.

Dates! Dates! Dates!

Each of the farming people we have read about depended largely on one kind of tree or one kind of food. The Papuans depended on the sago-palm tree for sago. The Baganda depended on the plantain.

The Arabians of the oases depend on the date-palm tree. They eat the dates from it. They build their houses of the round wood, and they build their bridges over the ditches with it. They make their furniture of it. Its leaves are made into mats. Fires for cooking food are made with its wood.

Life in the desert depends on the camel. But life in the oasis depends on the date. It is so very important that there are 500 different names for the date in the Arabian language.

The Arab Bedouins of the Sand Desert 325

We find that most of the Arabian farmers on the oasis spend much of their time taking care of the date-palm trees. Some of the dates they sell to the Bedouins who come in from the desert. Others they pack and ship to far-off countries in Europe, in Asia, and in America.

The farmers also raise alfalfa. This is cut into hay for the camels, donkeys, sheep, and oxen. There is so much heat and sunlight, and so much water all the year round, that the alfalfa grows very fast. It is cut at least eight times a year! Farmers in our country are happy if they get two or three crops of alfalfa a year.

Around the date-palm trees and in their garden plots the farmers also grow other fruits and vegetables. Pumpkins, tomatoes, onions, eggplants, figs, peaches, pomegranates, and melons are some of them. As more and more people have traveled to Arabia from other parts of the world, the Arabians have learned to grow these fruits and vegetables.

The Fine Crafts of the Arabian Oasis

On the oasis a town is not only a farming village. Many of the people are good craftsmen. Most important of all are the weavers, who make cloth on

hand looms. We can often see ten or fifteen workmen in the yard outside a rich owner's place. Each one is running his loom. The thread that he uses is made not only by the people of the towns but also by hundreds of thousands of women all over the desert. Both the thread and the cloth are sold in the towns.

Then there are coppersmiths, who make the beautiful coffeepots. Like the Tibetans, who could not live without their buttered tea, the Arabians must have their coffee. Each family makes its own coffee, and at each meal there are at least three pots.

The people of the oasis towns and villages work in other ways. There are tailors who make the simple gowns of the people and the trousers that they wear underneath them. There are others who make boots. Blacksmiths pound out iron pots and pans and nails.

The Meeting-Place: the Bazaar, or Market

So we see that in Arabia, as in other parts of the world, the people divide the kinds of work among themselves. Some make one thing; others make other things. Then they bring them to the market and exchange them. In Arabia they call the market the bazaar:



Oriental Institute

FIG. 108. A Bedouin weaver making cloth on a hand loom

Here in the bazaar the men of the desert and the men of the oasis meet. Each brings something to sell. Each comes to buy something. The desert Bedouins bring sheep, wool thread, hides, and perhaps some

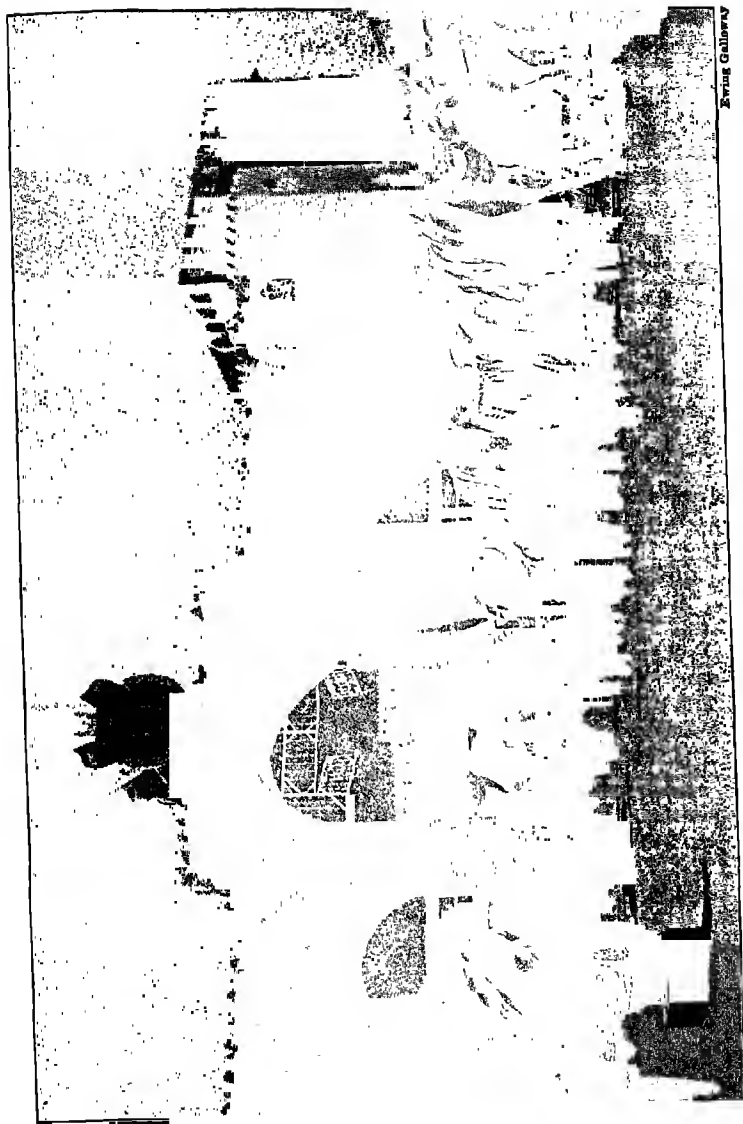
butter. Some among them also raise fine camels to sell, and they bring those.

The town man brings cloth, pots and pans made of copper and iron, guns, rugs, garments, perfume, and trinkets.

Of course these Arabians are a very, very old people. So they use money besides bartering. They put a price on each article, and they buy and sell for money.

It is in the town bazaar that the desert wanderers meet farmers and craftsmen. For hundreds, perhaps thousands, of years they have been meeting one another. Yet even today they do not understand or like one another.

The wandering people of the desert think of the town people as "slaves" of the rich people who own the land and of the merchants. They cannot understand how people can live in one house, in one street, in one town, all their lives. How can they go out to the same work every day! Then, too, they can hardly see the blue sky. How unhealthy they must be, living all together in towns! And how can they work with their hands! That is, indeed, slaves' work, think these nomads of the water holes.



Erving Galloway

Fig. 109. A camel caravan leaving an Arabian town for the desert

On the other hand, the people of the towns look at the dirt of the unwashed nomads and say, "What beasts!" When they hear of their fighting, they say, "These are wildmen." The desert women go about without veils to hide their faces from men, and the people of the town say, "They are too bold." They think of their shady, cool gardens, their fine water, and they wonder how the Bedouin, shivering in his chilly tent at night and scorching under the noonday sun, can always be moving, always be hunting for a water hole and a bit of shade.

But the reason for their feeling is that both the desert people and the town people like their own life. They have become used to it. They cannot understand how people can like to live in other ways.

CHAPTER XIV

What Have We Learned about Nature Peoples?

EIGHT NATURE PEOPLES have passed before our eyes. The stories about them have let us see eight very simple ways of living.

They have taken us to four continents of the earth. Three of these peoples live in the continent of Asia. One is the people of the tableland of Tibet. Another is the Bedouin people of the sand desert of Arabia. The third is the "grass" people of the mountains of Persia.

Two of these nature peoples live in the continent of Africa. These are the little Bushmen of the hot Kalahari Desert, and the Baganda of the high, cool lands of Uganda.

Two other nature peoples live in North and South America. The Copper Eskimos live in the Arctic region of North America. The Ona live far south in the cold, wet lands of South America.

Finally, one of these peoples live on an island in the Pacific Ocean, almost on the equator. These are the Papuans of New Guinea.

So our eight nature peoples have taken us to every part of the world. We have visited four of the six continents — all but Europe and Australia.

Kinds of Lands

We have studied about many kinds of land.

We have studied about continents.

We have studied about islands.

We have studied about peninsulas.

Can you tell now what each one is? How is a continent different from an island? How is a peninsula different from a continent or an island?

Geography Helps to Decide How People Live

We have learned how the earth is divided into zones and have seen different ways of living in the zones. People in the frigid zones live in one way; those in the torrid zones live in another way. Those in the temperate zones live in still different ways.

We have seen how climate — that is, temperature, rainfall, and winds — helps to decide how people live.

Mountains also help to decide how people live.

What We Learned of Nature Peoples 333

We have learned how soil and vegetation decide ways of living. Grassy plains make one kind of living; hot, sandy deserts make another kind of living; cold, icy deserts make still another.

Rivers, lakes, and oceans also decide ways of living. Nature people who live on rivers or near the sea travel in boats. They catch fish to eat. But those who live far inland, away from the ocean and away from large rivers and lakes, know nothing about ships or fishing. They catch insects and hunt animals and birds on the land. Some of them grow food in the soil.

We call our study of these things which help to decide how people live, "geography." In these books we shall be studying geography much of the time.

Why Do We Call These Peoples "Nature Peoples"?

Here are four reasons. Some are good reasons, and some are not. Which do you think is the very best one? Which is the next best?

1. They do not live in houses.
2. They live close to nature.
3. They do not wear clothes.
4. They depend on nature for their living.

There are other very good reasons. See if you can tell them.

We also called these nature peoples "simple" peoples. Are not their ways of living very simple, compared with ours?

Compare their houses with ours. Remember the windbreaks of the Bushmen and the Ona, the huts of the Papuans, the little thatched huts of the Baganda, the tents of the grass people, the snow houses of the Eskimos!

Then compare them with our large houses of brick or stone or concrete. In your mind, try to see some of the tall buildings of our towns and cities standing beside the mud huts of the Tibetans or the Papuan huts on poles. How different they are!

Compare the clothing worn by the simple people who live in the hot places with ours. The Bushmen and Ona and Papuans go about with almost no clothing. Do our people do that, even those who live in Louisiana or New Mexico, where it gets very hot? No, they wear clothing all the year round.

Compare the way these nature peoples travel with our ways of traveling. Do they ride on bicycles or in automobiles, wagons, trains, or airplanes? Have

they learned to tame animals and use them to pull their plows or wagons? Which of them ride on horses or camels or yaks?

Food-Gatherers and Food-Raisers

But some of these eight nature peoples live much simpler lives than others. One of the most important differences between them is the difference between the food-gatherers and the food-raisers.

The Bushmen, the Ona, and the Copper Eskimos are food-gatherers. They do not have farms where they plant wheat and corn and other crops. They do not have cows or goats or sheep from which to get milk and meat. They hunt insects or animals, birds or fish, for food. They simply gather what nature gives them. That is, they are food-gatherers, slaves of nature.

But the Papuans, the Baganda, the Tibetans, the Arabian Bedouins, and the Bakhtiari we call food-raisers. Some of them plant seeds in the ground and grow crops. These they harvest and make into food to eat. Others raise cows, goats, sheep, or yaks. They drink the milk from the cows and goats and yaks. They make butter and other things from the milk. They eat the meat of the animals.

The ways of living of the food-raisers are not quite so simple as those of the food-gatherers. They do not sit and wait for nature to give them something. They are not entirely slaves of nature. They depend on their own efforts to get a living.

These Are but a Few of the Many Different Peoples on the Earth

As we leave these stories about nature peoples we must remember one thing. We have studied very few of the many, many different peoples on the earth. We have chosen our eight nature people very carefully to show the different kinds of nature peoples living on the earth. In later books we shall study other ways of living.

Think of the tribes of Africa. There are more than 900 of them. Each tribe is different in some ways from all the others. And yet we have studied only two — the Bushmen and the Baganda. We chose these as examples of nature peoples in Africa. We could have studied the Fang of West Africa, or the Zulus or the Basutos or the Hottentots or many others of South Africa. Each tribe has its own ways of doing things. Each one would have taught us some-

thing new. But we had time for only two. Perhaps you can find books to read about some of the others.

So it is with the Arctic region of North America. There are many other tribes of Eskimos besides the ones we studied — the Copper Eskimos. There are the Eskimos of Alaska and the Eskimos of Hudson Bay. Each tribe lives in its own special way. Each would have taught us something new. But we had time for only one.

There are many, many different peoples in the great continent of Asia. There are many, many tribes on the islands of the Pacific Ocean. There are many others in the continents of South America and Australia.

So all over the earth there are thousands of different tribes and peoples. Each one lives its own special way, although they all do some things in the same ways.

Books You Would Like To Read

- CARPENTER, F. G. Around the World with the Children. American Book Co., New York. Life and customs of some of the people of the world.
- ENRIGHT, ELIZABETH. Kintu: a Congo Adventure. Farrar & Rinehart, Inc., New York. Story picture of a Congo chieftain's son.
- GHOSH, S. K. The Wonders of the Jungle, Books I and II. D. C. Heath and Company, Boston. Stories of jungle creatures.
- LOMEN, HELEN, and FLACK, MARJORIE. Taktuk, an Arctic Boy. Doubleday, Doran and Company, Inc., Garden City, New York. Interesting story of an Eskimo boy.
- MIRICK, G. A. Home Life around the World. Houghton Mifflin Company, Boston. Life in the jungle, in the desert, in the grasslands, etc.
- PEARY, J. D. Snow Baby: a True Story with True Pictures. Frederick A. Stokes Company, New York. A little white baby in Greenland.
- PERKINS, MRS. L. Eskimo Twins. Houghton Mifflin Company, Boston. Life in an Eskimo village.
- PRICE, M. E. Mota and the Monkey Tree. Harper & Brothers, New York. A little African girl has an exciting journey.
- SCHWATKA, FREDERICK. Children of the Cold. Educational Publishing Co., Chicago. The life of the boys and girls of the North.

SHAW, E. R. *Big People and Little People of Other Lands.* American Book Co., New York. Ways of living in China, Arabia, Patagonia, Russia, and other lands.

SMITH, M. E. E. *Eskimo Stories.* Rand McNally & Company, Chicago. Interesting and popular.

SPERRY, ARMSTRONG. *One Day with Jambi in Sumatra.* The John C. Winston Co., Philadelphia. This story tells of hunting, fishing, and rice planting in an interesting land.

SPERRY, ARMSTRONG. *One Day with Manu.* The John C. Winston Co., Philadelphia. Life on a tropical island in the Pacific.

SPERRY, ARMSTRONG. *One Day with Tuktu.* The John C. Winston Co., Philadelphia. An interesting Eskimo story.

STEPHENSON, M. B. *Caves, Tents and Houses.* Follett Publishing Company, Chicago. Story of man's houses in picture-strip.

VERPILLEUX, E. A. *The Picture Book of Houses.* The Macmillan Company, New York. Homes in different lands.

WEBB, CLIFFORD. *A Jungle Picnic.* Frederick Warne & Co., Inc., New York. Picture storybook of the animals and birds of Africa.

WELLS, RHEA. *Ali the Camel.* Doubleday, Doran and Company, Inc., Garden City, New York. Adventures in the sand desert.

How to Pronounce Some of the Strange Words in This Book

You say *ă* as it is in *can*; *ā* as it is in *cane*; *ā* as it is in *father*
ĕ as it is in *bet*; *ē* as it is in *be*; *ĕ* as it is in *her*
ȳ as it is in *hid*; *ī* as it is in *hide*
ō as it is in *not*; *ō* as it is in *note*; *o* as it is in *horse*
oi as it is in *oil*; *ou* as it is in *out*
ōō as it is in *foot*; *ōō* as it is in *food*
ū as it is in *use*; *ȳ* like *ng* in *sing*

Abyssinia (ăb ĭ sĭn'ī a)
 Aden (ă'den), Gulf of
 Africa (ăf'rī ka)
 Alaska (a lăs'ka)
 Ancholi (ăn kō'ī)
 Andes (ăn'dēz)
 Antarctic (ănt ār'k'tīk)
 Arab (ăr'ab)
 Arabia (a rā'bī a)
 Arctic (ār'k'tīk)
 Asia (ā'zha)
 Athabasca (ăth a băs'ka)
 Landing
 Australia (ōs trāl'ya)

 Babuma (bă bōō'mă)
 Baganda (bă găn'dă)

Bahima (bă hē'mă)
 Bakalahari (bă ka lă hă'rē)
 Bakhtiari (băk tē ä'rē)
 Bakoki (bă kō'kī)
 Bakonjo (bă kōn'jō)
 Bali (bă'lē)
 Banabuddu (bă na bōō'dōō)
 Bantu (băn'tōō)
 Banyoro (băn yō'rō)
 Bari (bă'rī)
 Basoga (bă sō'ga)
 Batoro (bă tōr'ō)
 bazaar (ba zăr')
 Baziba (bă zē'ba)
 Bedouin (bēd'ōō īn)
 Belgian Congo (bēl'jī an
 kōŋ'gō)

Bering (bēr'ing) Strait
 betel (bē't'l)
 Bil Afen (bīl ä'fën)
 Bil Ashush (bīl ä'shōōsh)
 Borneo (bôr'nē ō)

cache (kāsh)
 Calcutta (kāl kūt'a)
 Cameroons (kām ēr ōōnz')
 Cancer (kān'sēr), Tropic of
 Capricorn (kāp'rī kōrn),
 Tropic of
 caribou (kār'ī bōō)
 Carstens (kār'stens), Mount
 Changu (shāṅ'gōō)
 Chinese (chī nēz')
 Congo (kōṅ'gō) River
 Coppermine (kōp'ēr mīn)
 River
 Coronation (cōr ō nā'shun)
 Gulf
 cowrie (kou'rī)

Dahomey (dā hō'mā)
 Darjeeling (dār jē'līng)
 Dhofar (dō'fār)

Edmonton (ēd'mun tun)
 Egypt (ē'jīpt)
 Egyptians (ē jīp'shanz)
 eland (ē'land)

Elevala (ēl ē vā'la)
 Eskimo (ēs'kī mō)
 Eurasia (ūr ā'sha)

Fiji (fē'jē)

Gangtok (gāṅ'tōk)
 Gobi (gō'bē)
 guanaco (gwā nā'kō)
 Gyangtse (gyāṅ'tsē')

Haidar (hā'dār)
 hartebeest (hār'tē bēst)
 Hasa (hā'sā)
 Haugak (hō'gāk)
 Herschel (hēr'shel) Island
 Higilak (hīg'ī lāk)
 Himalaya (hī mā'la ya)
 Mountains
 Hindus (hīn'dōōz)
 Hottentot (hōt'n tōt)
 hyena (hī ē'na)

Ibn Saud (īb'n sā ōōd')
 Ikpakhuak (īk pāk'yōō āk)
 Italy (īt'a ī)

Java (jā'va)
 Jenness (jē nēs')
 Kaimari (kā mā'rē)

How to Pronounce Strange Words 343

Kalahari (kā lä hä'rē) Desert	Meneses, Jorge de (zhōr'zhě dā mā nā'sās)
Kampala (kām pä'lä)	Meri (měr'ī)
Karakoram (kā rä kō'rum)	Mexico (mēk'sī kō)
Mountains	mirage (mī räzh')
Karponang (kär pō näng')	Mississippi (mīs ī sīp'ī)
Kavirondo (kā vē rōn'dō)	Mombasa (mōm.bā'sä)
kayak (kī'äk)	Muhammad (mōō hām'mät)
Khor Dhahiya (kōr dä hē'ya)	Murras (měr'az)
Korea (kō rē'a)	Mutesa (mōō tē'sa)
Kudu (kōō'dōō)	
Kuhrud (kōō'rōōd)	Natu (nä tōō') Pass
kumiss (kōō'mīs)	New Britain (brīt'n)
Kwen Lun (kwēn'lōōn')	Newfoundland (nū fund länd')
	New Guinea (gīn'ī)
Labrador (läb ra dōr')	Nigeria (nī jēr'ī a)
Latuka (la tōō'ka)	
Lendu (lēn'dōō)	oasis (ō ā'sīs)
Lhasa (läs'ä)	Okalluk (ōk'a lūk)
Liberia (lī bēr'ī a)	Ona (ō'nä)
Lufte (lōōf'tē)	
	pagoda (pa gō'da)
Mackenzie (ma kēn'zī) River	Papua (pāp'ū a)
McPherson (mak fēr'sun)	Papuans (pāp'ū anz)
madinda (ma dīn'da)	papyrus (pa pī'rus)
Magellan, Ferdinand	Persia (pēr'zha)
(fēr'dī nānd ma jēl'an)	Persian (pēr'zhan)
Malay (ma lä') Peninsula	Philippine (fīl'ī pēn) Islands
Marsuq (mār zōōk')	plantain (plān'tīn)
Maula (mwä'lä)	pomegranate (pōm'grān īt)
Mediterranean (mēd ī tē rā'- nē an)	prawns (prōnz)

pygmies (pĭg'mĭz)

Rahim Khan (ră'hēm kăn)

Retis, Ortis de (ōr'tĭs dā rā'tĭs)

Rhodesia (rō dē'zhĭ a)

Riyadh (rē yād')

Sabla (să'bla)

Safif (sa fēf')

sago (sā'gō)

Sahara (sa hă'ra) Desert

Salih (sā'lă)

Samoa (să mō'ă)

Scandinavia (skăn dĩ nă'vĭ a)

Seattle (sē āt'l)

Senegal (sĕn ē gōl')

Shanna (shăn'na)

Shisur (shĭ sōōr')

Sierra Leone (sĭ ěr'a lē ō'nē)

Somaliland (sō mă'lē lănd)

Speke (spĕk), John

Stefansson (stă'făns sōn)

Sudan (sōō dăn')

Suez (sōō ěz') Canal

Superior (sū pēr'ĭ ěr), Lake

Sweden (swē'den)

Tahiti (tă'hē'tē)

taro (tă'rō)

Tibet (tĭ bĕt')

Tibetans (tĭ bĕt'anz)

Tien Shan (tyĕn'shăn') Mountains

Tierra del Fuego (tyĕr'ră dĕl fwă'gō)

toga (tō'ga)

Toro (tôr'ō)

Transvaal (trăns văl')

tsamba (tsăm'ba)

Uganda (ū găn'da)

Ugogo (ū gō'gō)

Utah (ū'tō)

Victoria (vĭk tō'rĭ a) Island

waterbok (wō'tĕr bōk)

wildebeest (wĭl'de bĕst)

xylophones (zĭ'lō fōnz)

yak (yăk)

Yucatan (yōō kă tăn')

Zanzibar (zăn zĭ bār')

Zardeh Kuh (zăr'dĕ kōō)

Zulus (zōō'lōōz)

THE INDEX

How to Use the Index

This Index will help you to find things which you want to read about in *Nature Peoples*. It shows you which pages tell about Canoe Indians, the "Roof of the World," Eskimos, or other things which interest you.

Perhaps you want to read about Canoe Indians. The word *Canoe* begins with the letter C. Look through the Index until you come to the letter C. Say your A B C's. The letter C will be found near the beginning of the Index because it is near the beginning of the alphabet.

When you come to the letter C in the Index, you will see a number of words which begin with C. Look through these words until you come to the word *Canoe*. The letter *n* is farther along in the alphabet than the letter *m* is. So the word *Canoe* will come after the word *Camel* in the Index.

Beside the word *Canoe* you will find the number

54. This is the number of the page in this book which tells about Canoe Indians. Look on page 54.

Perhaps you would like to read about the "Roof of the World." The word *Roof* begins with the letter *R*. Say your A B C's again. The word *Roof* will be found near the end of the Index because *R* is near the end of the alphabet. After the words *Roof of the World* you will see the numbers 8 and 264. This means that you can read about the "Roof of the World" on each of these pages.

Perhaps you want to read about the Eskimos. After the word *Eskimos* you will see the numbers 4, 29, 85, 98, 101, 179. This means that you can read about Eskimos in six places.

After the word *Desert* you will find the numbers 13, 25, 48, 295. What do you think these numbers mean? Look on these pages to see if you are right.

When you are beginning to use your Index, you may need some help from your teacher. Soon you can use your Index by yourself. Then you will have a quick and easy way to find the interesting things in your book.

- Alaska, 85
 Altitude, 219
 Andes Mountains, 56
 Antarctic, 29
 Antarctic Circle, 177
 Antelopes, 16, 40
 Arabia, 297
 Arabian Desert, 29, 83, 297, 302
 Arctic, 29, 86, 88
 Arctic Circle, 85, 177
 Arctic Ocean, 88, 93, 95, 101
 Arrows, 39, 60, 66, 69, 79

 Baganda, 6, 183, 335
 Bakhtiari, 229, 258, 335
 Bark cloth, 206
 Barter, 131, 166, 208, 221, 258, 328
 Bazaar, 326
 Beasts of burden, 78; 207
 Bedouins of Arabia, 295, 297, 331, 335
 Bering Strait, 87
 Betel nut, 160, 162
 Black tents of the Tibetans, 287, 288
 Blubber, 105
 Bows, 41, 60, 66, 69
 Breathing-holes, 116
 Bushmen, 4, 24, 31, 48, 138, 176, 335

 Cache, 125, 126
 Camel, 295, 302, 314
 Canoe Indians, 54
 Caravan, 106, 234, 302
 Caribou, 123, 128
 Chief, 39, 197, 222, 225, 229, 303
 Clan, 197, 215
 Climate, 81, 84, 173, 179, 206, 218, 254, 275, 332
 Clothing, 221, 334
 Continents, 142
 Copper Eskimos, 100, 101, 125, 138, 335
 Coppersmiths, 326
 Cowrie shells, 210
 Craftsmen, 79, 221, 325

 Dance, of the Bushman, 43; of the Eskimo, 120; of the Papuan, 158
 Dates, 324
 Daylight in the Arctic, 93
 Delta, 95, 153
 Desert, 13, 25, 48, 295
 Dress, of the Ona, 58, 69; of the Eskimo, 104, 126, 139; of the Papuan, 154; of the Baganda, 206; of the Tibetan, 292
 Duel, 76

- Egypt, 186
 Equator, 152, 174
 Eskimos, 4, 29, 85, 98, 101, 179
 Family, 56, 79, 162, 198, 222
 Farmer, 220, 325
 Flint, 63
 Food-gatherers, 31, 36, 51, 78, 85, 101, 132, 164, 198, 216, 220, 258, 335
 Food-raisers, 77, 220, 335
 Foot Indians, 54
 Forbidden country, 261
 Frigid zones, 178
 Gobi Desert, 29
 Government, 197, 222, 230, 282
 Grass people, 8, 225, 252, 287, 331
 Grease stone, 64
 Great Salt Lake, 14
 Great Slave Lake, 87
 Grubs, 164
 Guanaco, 58, 71
 Gyangtse, 276, 282
 Harpoon, 117
 Hemisphere, 174
 Herdsmen, 8, 216, 229, 286
 Houses, 4, 34, 57, 78, 108, 126, 200, 221, 276, 317
 Hunting, 39, 60, 114
 Hurley, Captain Frank, 146
 Huts, 79, 148, 153
 Ice desert, 29
 Islands, 142
 Jungle, 150
 Kalahari Desert, 13, 16, 31, 37, 48, 81, 83, 132
 King, 197, 222
 Kuhrud Mountains, 225, 255
 Kumiss, 240, 259
 Latitude, 175, 177
 Lhasa, 263
 Mackenzie River, 87, 95
 Magellan, 51, 143
 Market, 326
 Marrow, 38
 Meneses, Jorge de, 143
 Mirage, 22, 151
 Moccasins, 60
 Monastery, 284
 Money, 208, 221
 Mosquitoes, 91, 151
 Mount Carstens, 152

- Mountain sickness, 271
 Mountains, 225, 238, 246, 255, 262
 New Guinea, 141
 Nile River, 186
 Nomads, 258
 Oasis, 29, 321
 Ona Indians, 4, 51, 54, 132, 138, 335
 Palm trees, 148
 Papua, 144
 Papuan town, 153
 Papuans, 6, 79, 141, 143, 198, 335
 Papyrus, 204
 Pass, 234, 269
 Peninsula, 297
 Plantain, 302
 Priests, 282
 Pygmies, 32, 38, 170
 Quiver, 41, 69
 Rainfall, 82, 254
 Retez, Ortiz de, 144
 "Roof of the World," 8, 264
 Sago, 164
 Sahara Desert, 13, 29, 83
 Sandstorm, 307
 Seal hunt, 114
 Sealing-ground, 102, 108, 116
 Seasons, the, 135, 171
 Sheik, 303
 Silt, 95
 Slaves of nature, 132, 166, 220, 229, 287
 Sleeping-platform, 112
 Snow houses, 108
 Soil, 256
 Speke, John, 187
 Stone lamp, 113
 Swamps, 56, 150
 Tableland, 261, 272
 Temperate zones, 178
 Temperature, 81, 254
 Tents, 126, 229, 287
 Thomas, Bertram, 300
 Tibet, 29, 261
 Tibetans, 336
 Tierra del Fuego, 52, 54, 81, 83
 Toga, 206
 Tools, 65, 79, 131, 139, 169, 221
 Torrid zones, 177
 Towns in the desert, 319
 Trade, 131, 166, 221, 257

- Training of Ona boys, 77
Tribes, 79, 215, 225
Tropic of Cancer, 177
Tropic of Capricorn, 177
Tropics, 150
Tsamba, 280

Uganda, 183
Utensils, 63, 131, 221

Village, 108, 148, 153, 198,
222, 276
Vultures, 22

War among the Ona, 71
Water holes, 18, 22, 31, 303,
317
Wells, 322
Windbreak, 57, 66, 71, 79
Winds, 84, 255
Wrestling, 72

Yak, 282, 288, 290, 293, 335

Zanzibar, 190
Zones, 175, 178, 332

